St. Louis Regional Mobility Report

NOVEMBER 2012

Monitor Aggressively, Manage Proactively

GuidePost

- On Friday, November 2, 2012, the I-70 Blanchette Missouri River Bridge construction project officially got underway in an effort to update the 54-year-old span
- I-70 traffic is now reduced from ten lanes to six (three lanes in each direction)
- AM Arterial peak travel times remained fairly stable for the sixth month in a row
- Seasonal increase in volume is impacting PM Arterial travel in peak direction
- Freeway congestion remained varied with improvements in areas where projects were completed and decreases for new projects
- Blanchette Bridge Project Traffic Summary is on pages 21-33

A section of the Blanchette Bridge was imploded on November 19, 2012, as part of the I-70 construction project.

ZONING IN

- 2011 vs. 2012 TMS Work Zone Comparison: November 2011: 269 November 2012: 392
- TMC observed work zones breakdown: 281
  - Major Impact on Travel: 1 – 0.36%
  - Moderate Impact on Travel: 3 – 1.06%
  - Minor Impact on Travel: 277 – 98.58%
- SL District Work Zone Inspections:
  - October 2012: 26%
  - November 2012: 31%
  - Goal: 50%
  - SL District Mobility Rating:
    - October 2012: 92%
    - November 2012: 98%
    - Goal: 91%
  - Visibility levels:
    - October 2012: 89%
    - November 2012: 98%
    - Goal: 91%
- Work zone crashes in November: 9

Mobility Snapshot

Indicates Improving Trend

Indicates Worsening Trend

Freeway Mobility
Continued Decrease Overall

Arterial Mobility - Stable
November 2011 → 1.73 min/mile avg.
November 2012 → 1.74 min/mile avg.

Major Incidents
October: 6 → November: 5
2012 Total → 58 Monthly Avg. →5.3

Average Incident Duration Oct →Nov
Lane clearance 30:24 → 27:11

Major Impact Work Zones
October: 0 → November: 1

Moderate Impact Work Zones
October: 5 → November: 3

November Mobility: 2011 → 2012
Increases in major incidents, major/moderate work zones.
Freeway mobility stable.

Work Zone Summary

*Impact Levels described in Data Key

TMC Observed Work Zones November 2012	
Level of Travel Time Impact	**Number of Work Zones**
Major Impact	**1**
Moderate Impact	**3**
Minor Impact	**277**
Total	**281**

Major Impact (15 Minutes or Above Additional Travel Time)

11/6 (Tuesday) Overnight Westbound I-70 Mississippi River Bridge Project -- Total Closure

- Setting girders for new Mississippi River Bridge
- Traffic was stopped for up to 20 minutes at various times
- Traffic queued to the depressed section
- All mitigation efforts were in full use during these closures

Moderate Impact (10-14 Minutes Additional Travel Time)

11/1 (Thursday) AM Eastbound I-64 past Grand Boulevard -- One Lane Traffic

- There was a 2.1 mile queue from 6:45 am to 8:40 am
- Motorists experienced 12 minutes of additional travel time
- All mitigation efforts were in full use during these closures

11/3 (Saturday) AM Westbound I-70 past Earth City Expressway (Blanchette) -- Two Left Lanes Closed

- Preparation for full closure of Westbound I-70 Lanes
- Crossover and striping being completed for traffic switch
- Motorists experienced an additional travel time of 14 minutes
- All mitigation efforts were in full use during these closures

11/9 (Friday) Overnight Eastbound I-70 past St. Louis Avenue -- Two Left Lanes Closed

- Setting girders for new Mississippi River Bridge
- Traffic was stopped at various times for up to 14 minutes
- Traffic queued to the depressed section
- All mitigation efforts were in full use during these closures

Work Zone Related Crashes

11/4 (Sunday) 10:18 AM Westbound I-70 at Route 141 -- Right Lane Closed

- First morning of the Blanchette Bridge closure
- Multi-vehicle crash with vehicles pushed to lane drop by police
- Left lane was closed for 30 minutes during incident and all lanes cleared at 10:56 am with no queue
- Key personnel contacted, all work zone signage and mitigation efforts were in full use during this closure

11/4 (Sunday) 12:08 PM Westbound I-70 at Route 141 -- Right Lane Closed

- A crash was spotted on the shoulder before Earth City Expressway at 12:08 pm
- Motorists experienced 18 minutes of additional travel time
- No injuries were reported, incident cleared at 12:44 pm
- Key personnel contacted, all work zone signage and mitigation efforts were in full use during this closure

11/8 (Thursday) 8:32 AM Rush Northbound I-270 before Dougherty Ferry Road – All Lanes Open

- Multi-vehicle crash in left lane
- No additional travel time observed
- No injuries reported
- Crash was cleared in 40 minutes with no queue
- Key personnel contacted, all work zone signage and mitigation efforts were in full use

11/9 (Friday) 4:16 AM Westbound I-70 at Earth City Expressway (Blanchette) --Two Right Lanes Closed

- A two vehicle crash in right lane
- No additional travel times observed
- No injuries reported
- Key personnel contacted, all work zone signage and mitigation efforts were in full use during this closure

11/17 (Saturday) 7:55 PM Eastbound I-64 on Poplar Street Bridge -- Two Left Lanes Closed

- Diamond grinding operation
- Minor crash with no injuries
- MoDOT Emergency Responders, Police and Fire Department responded to the scene
- Incident cleared in 25 minutes
- Key personnel contacted, all work zone signage and mitigation efforts were in full use during this closure

11/18 (Sunday) 12:25 PM Eastbound I-70 past Missouri River Right Shoulder -- All Lanes Open

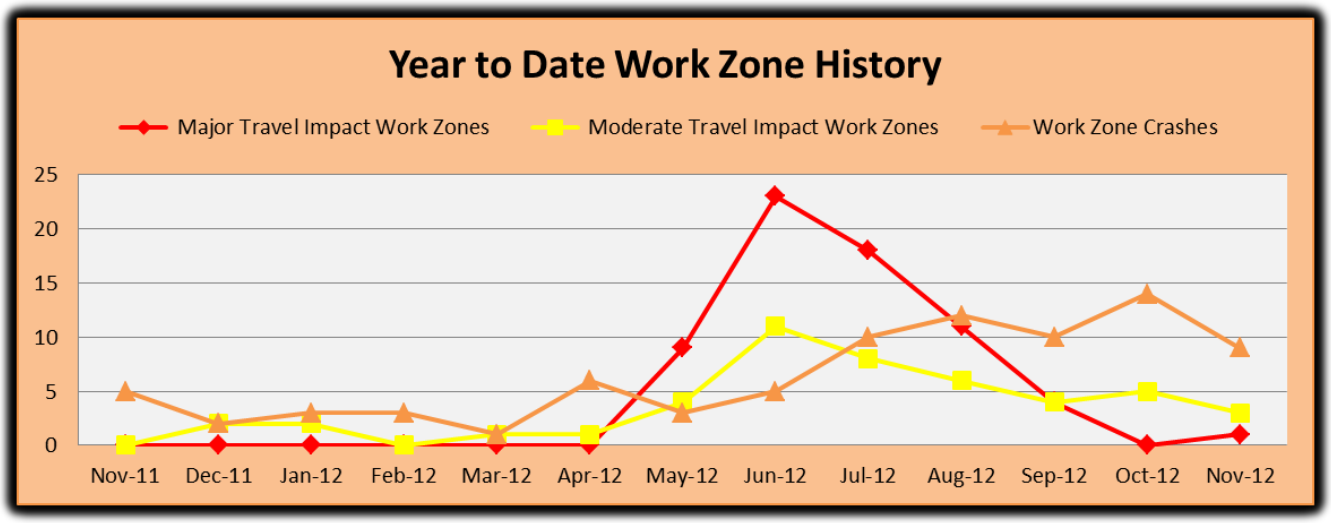
- Two minor crashes at the same location one at 12:25 pm and the secondary crash at 12:45 pm
- Both crashes involved two vehicles
- No Injuries reported
- Police and Motorist Assist responded to the scene
- No impact to mainline, both incidents cleared by 1:06 pm
- Key personnel contacted, all work zone signage and mitigation efforts were in full use during this closure

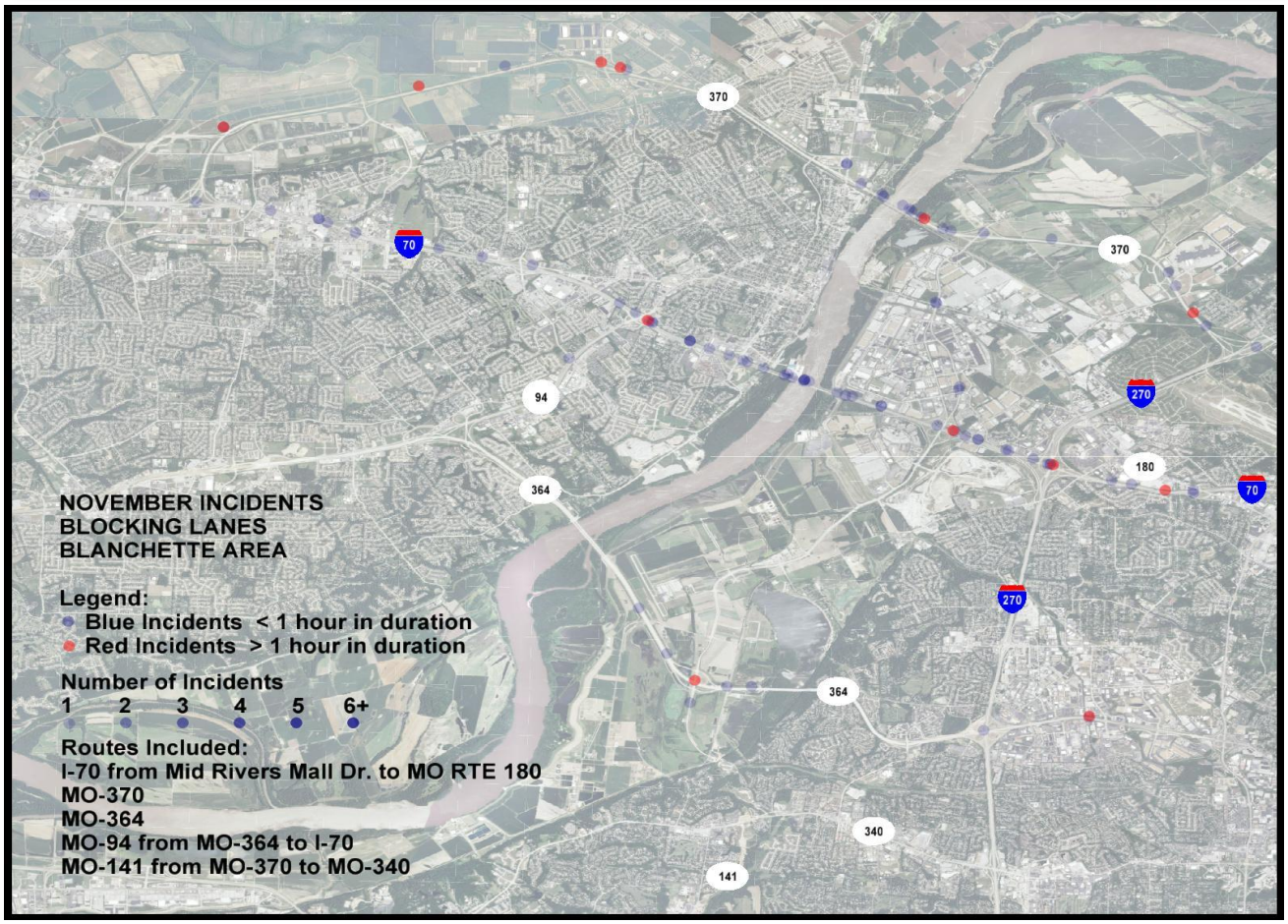
11/19 (Monday) 10:02 PM Eastbound I-270 past West Florissant – Three Right Lanes Closed

- A single vehicle crash with suspected DWI just past Route 367
- Vehicle traveling in westbound lanes crossed over barrier wall into eastbound lanes
- MoDOT Emergency Responders, MoDOT Maintenance, St. Louis County and Bellefontaine Police, Black Jack EMS and Tow responded with no report of injuries or state damage
- Traffic backed to east of Old Halls Ferry Road during incident response
- Incident was cleared at 10:52 pm with no queue
- Key personnel contacted, all work zone signage and mitigation efforts were in full use during this closure

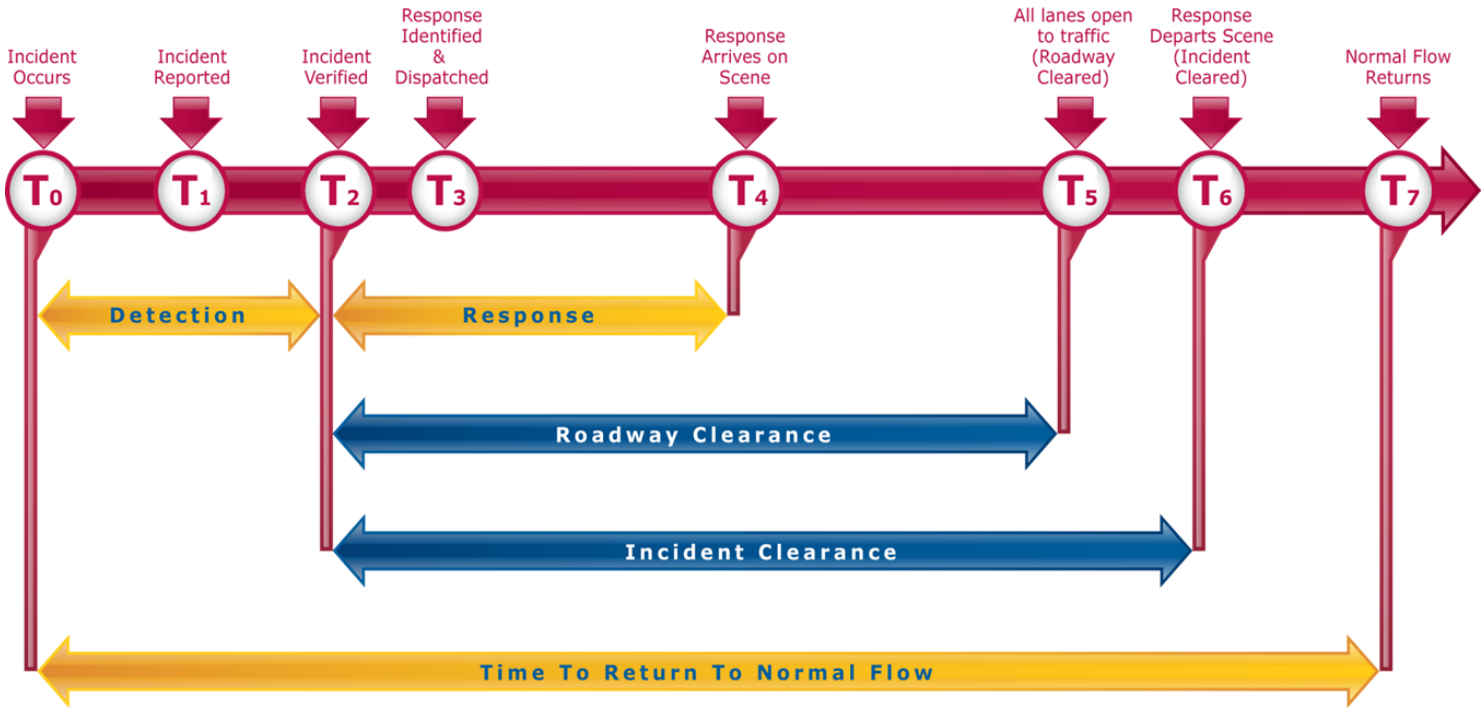
11/20 (Tuesday) 7:25 AM (Rush) Northbound I-270 past I-44 -- All Lanes Open

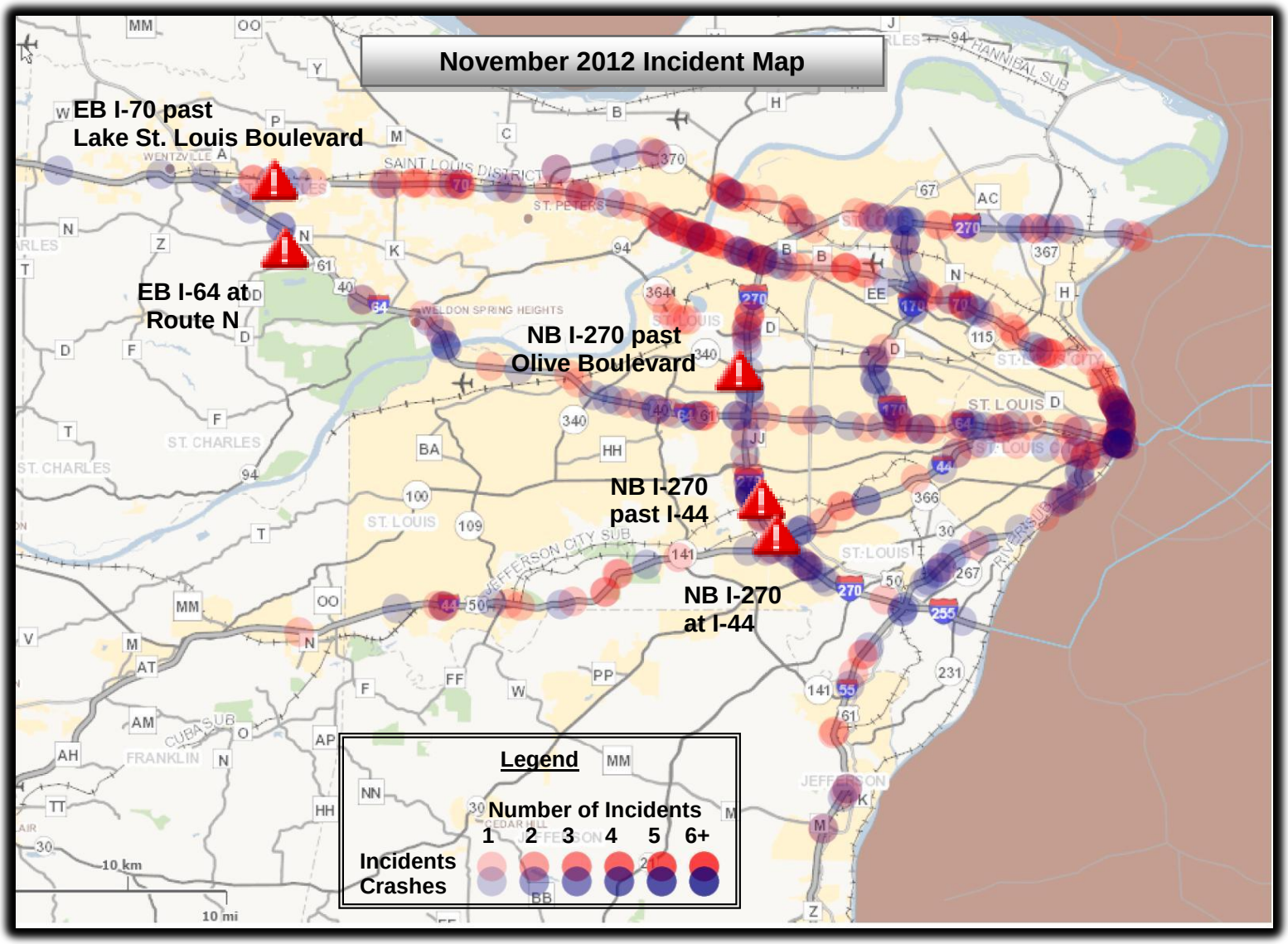
- A three vehicle crash
- No Injuries reported
- Crash was moved to shoulder inside of cones for unopened new right lane
- A 4.2 Mile queue resulted in 14 minutes of additional travel time for 4,435 vehicles and 5,325 motorists with 132 vehicles per minute/per lane adding to the queue. The cost of the crash is estimated at $1550 for every minute of additional travel time caused by the crash
- Key personnel contacted, all work zone signage and mitigation efforts were in full use






October 2012 vs. November 2012
Incidents Summary
I-44
I-55
I-64
I-70
I-170
I-270
MO-364
MO-370
Minutes
60
50
40
30
20
10
0
Oct Nov Oct Nov Oct Nov Oct Nov Oct Nov Oct Nov Oct Nov Oct Nov
Average Time for Backup to Clear = T6 - T5
Average Time to Clear Incident from Lanes = T5 - T2


Incident Occurs
Incident Reported
Incident Verified
Response Identified & Dispatched
Response Arrives on Scene
All lanes open to traffic (Roadway Cleared)
Response Departs Scene (Incident Cleared)
Normal Flow Returns
T0
T1
T2
T3
T4
T5
T6
T7
Detection
Response
Roadway Clearance
Incident Clearance
Time To Return To Normal Flow



Number of Incidents			
Interstate	September	October	November
I-70	150	116	143
I-270	109	93	73
I-64	71	69	70
I-55	70	58	48
I-44	54	47	44
Mo-370	13	10	23
I-170	21	30	22
Mo-364	0	1	6
Total	488	415	429

Denotes Location of Major Impact Traffic Incidents

- The incident details and mitigation actions along with the results are outlined on page 7
- Please note that traffic engineering assumptions were made when describing the approximate number of vehicles and people impacted.
- These estimates provide a simple method to describe the impact on the motoring public.

Number of Major Impact Incidents

October 2012 vs. November 2012

6 **5**

Major Impact Traffic Incidents and Mitigation

11/6/12 (Tuesday)

- **Time:** 5:34 am – 12:11 pm ***Rush Hour Event***
- **Location:** St. Charles County - Eastbound I-64 at Route N
- **Event:** A crash involving a tandem tractor trailer with a fuel spill closed all lanes
- **Action:** Transportation Management Center posted web-based and text message alerts, displayed advanced messaging on roadside message boards informing motorists of the closure and to use an alternate route. MoDOT Incident Management Coordinator, State EOC and Motor Carriers were notified. MoDOT Emergency Response, St. Charles Maintenance Superintendent, MSHP, O'Fallon Police Department, Wentzville Fire Department, DNR and tow responded to the scene.
- **Estimated Initial Impact:** Overturned tractor trailer that resulted in guard rail damage, and a hazmat spill reported of 200 gallons of Diesel Fuel. Total closure resulted at onset. Incident responders were able to open left lane at 6:09 am and agreed to push the truck out of the right lane onto the shoulder to clear it for motorists during rush hour.
  Result: The Incident was managed to mitigate travel impact by delaying cleanup until after morning rush. The right lane and right shoulder closed after rush hour to upright part of the trailer. Periodic total closures took place for debris and vehicle recovery, hazmat cleanup and guardrail repairs. Mitigation efforts reduced additional travel time during this incident. All lanes opened at 12:11 pm with a 4 minute queue.
- **Duration**: 6 hours 37 minutes

Major Impact Traffic Incidents and Mitigation

11/15/12 (Thursday)

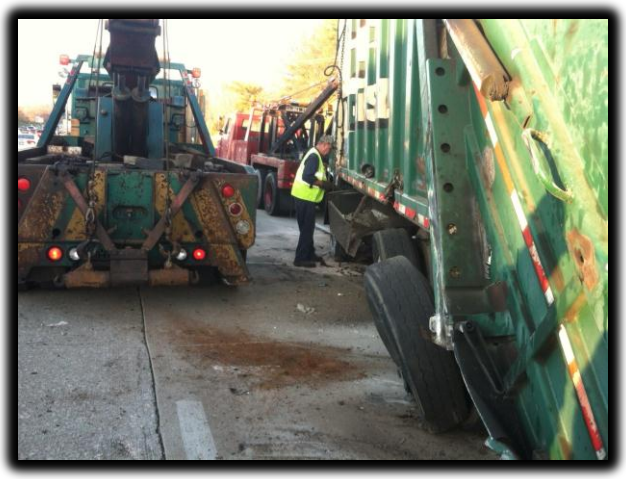
- **Time:** 6:48 am – 9:13 am ***Rush Hour Event***
- **Location:** St. Louis County - Northbound I-270 past I-44
- **Event:** A Tractor trailer stalled in the center lane (Engine stall / locked brakes)
- **Action:** Transportation Management Center posted web-based and text message alerts, displayed advanced messaging on roadside message boards informing motorists of the lane closure. MoDOT Emergency Responders were dispatched to the scene. Sunset Hills Police and Bolen Towing responded to the scene.
- **Estimated Initial Impact:** The tractor trailer would not remain running without cold start ether injections. MoDOT Emergency Responder communicated with the TMC and indicated it would be best to move it to the inside lane rather than attempting to move the vehicle across four lanes of traffic to the shoulder. The MoDOT Emergency Responder used ether to restart the engine and moved the vehicle to the left shoulder partially blocking the inside lane.
- **Result:** Traffic control was provided while awaiting tow response. Tow was dispatched at 7:09 am and did not arrive on scene until 8:50 am. All lanes opened at 9:13 am with an 11 minute queue. MoDOT Emergency Response prevented secondary incidents by removing the vehicle from the center lanes and could have cleared the incident much sooner with a quicker tow arrival.
- **Duration**: 2 hours 24 minutes

Major Impact Traffic Incidents and Mitigation

11/21/12 (Wednesday)

- **Time:** 2:06 pm – 4:42 pm ***Rush Hour Event***
- **Location:** St. Louis County - Northbound I-270 past Olive Boulevard
- **Event:** A crash involving an overturned trash truck
- **Action:** Transportation Management Center posted web-based and text message alerts, displayed advanced messaging on roadside message boards informing motorists of the lane closures. MoDOT's Incident Management Coordinator was notified. MoDOT Emergency Responders were dispatched and requested a fire truck respond because of a 20 gallon fuel spill. Creve Coeur Fire Department, St. Louis County Police, MSHP and Ballas Maintenance personnel responded to the scene. Maurer Towing responded to upright the tractor trailer
- **Estimated Initial Impact:** Driver reported that something broke the truck's suspension, causing vehicle to lose control, contact wall and land on side. The four right lanes and right shoulder were closed.
- **Result:** One lane opened at 3:22 pm leaving the three right lanes closed for cleanup and to upright overturned vehicle. Tow company experienced problem with tandems (tires) separated from truck when trying to upright. A different plan was initiated to reattach/secure tandems to the frame. The tow truck was placed horizontally across lanes to capture the proper lift angle due to the position of the vehicle and barrier wall. Eventually the incident moved to the right lane and shoulder until all lanes opened at 4:42 pm with a 13 minute queue.
- **Duration**: 2 hours 36 minutes

Major Impact Traffic Incidents and Mitigation



Major Impact Traffic Incidents and Mitigation

11/23/12 (Friday)

- **Time:** 2:48 am – 5:03 am
- **Location:** St. Charles County - Eastbound I-70 past Lake St. Louis Boulevard
- **Event:** A two vehicle crash involving a tractor trailer
- **Action:** Transportation Management Center posted web-based and text message alerts, and displayed advanced highway messaging on roadside message boards informing motorists of the lane closures. MoDOT Emergency Responders, MSHP Troop C, Lake St. Louis Police and Fire Departments, St. Charles County EMS, and DTW Towing responded.
- **Estimated Initial Impact:** Two rights lanes closed with one lane opened at 4:43 am
- **Result:** All lanes opened at 5:03 am with no queue.
- **Duration**: 2 hours 15 minutes

11/30/12 (Friday)

- **Time:** 4:30 pm – 6:50 pm ***Rush Hour Event***
- **Location:** St. Louis County - Northbound I-270 at I-44
- **Event:** A stalled tractor trailer blocked the right lane
- **Action:** Transportation Management Center posted web-based and text message alerts, and displayed advanced highway messaging on roadside message boards informing motorists of the lane closure. MoDOT Emergency Responders were dispatched to the scene. Sunset Hills Police Department and a tow company responded to the scene.
- **Estimated Initial Impact:** Tractor trailer lost all air throughout the system. One northbound lane was closed.
- **Result:** Tow had to perform roadside maintenance before safely moving tractor trailer. All lanes opened at 6:50 pm with no queue.
- **Duration**: 2 hours 19 minutes

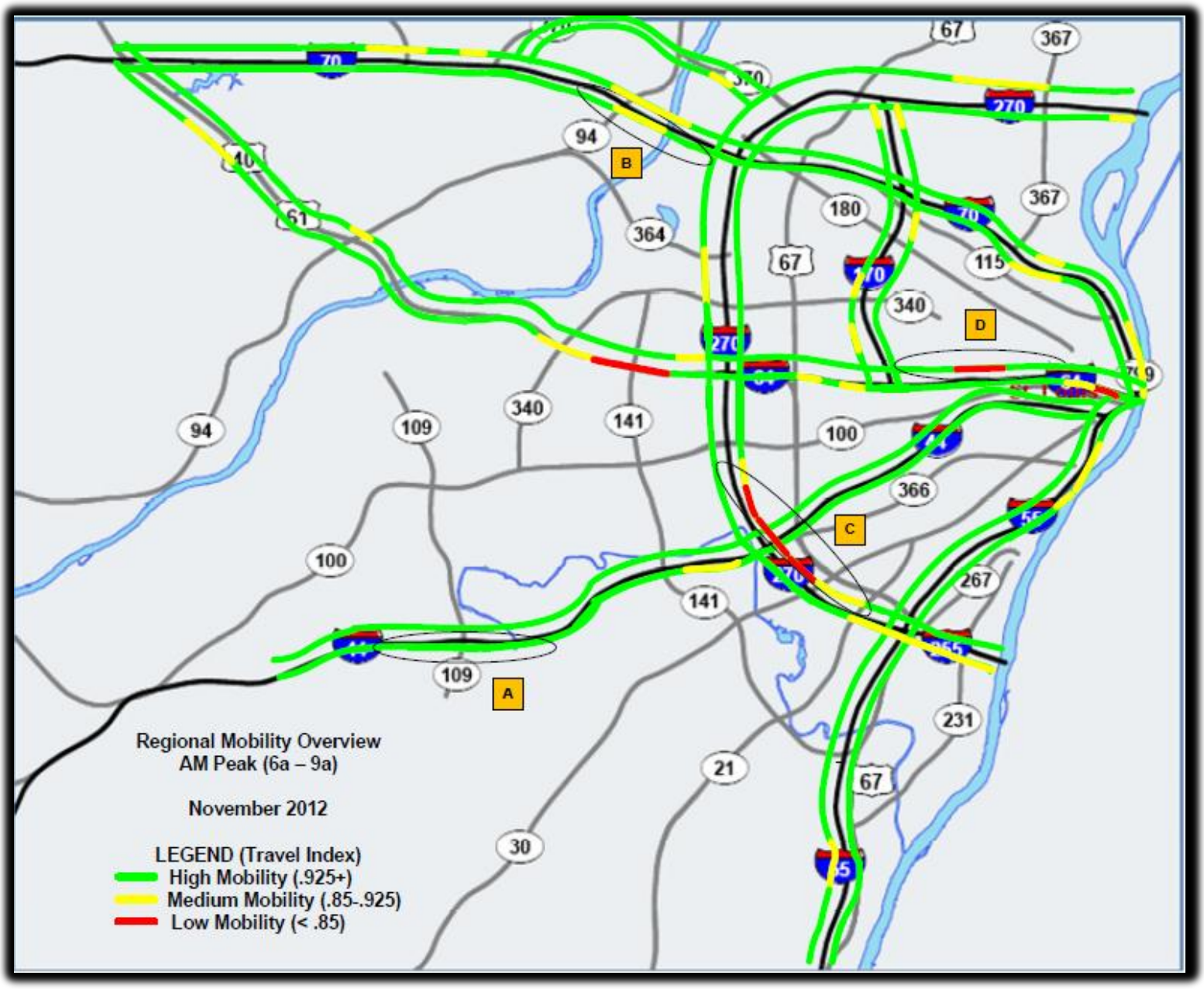
High/Moderate Impact Traffic Mitigation Events

11/8/2012 (Thursday)

- **Location:** St. Louis County - Southbound Route 367 @ Redman Road
- **Event:** Crash closed all lanes
- **Time:** 6:15 am - 7:00 am **Total Time:** 45 minutes
- **Action:** Traffic was detoured via Route 367 West Outer Road (Benham) from Parker Road to Dunn Road. The timing was adjusted at the signals at Route 367 @ Parker-Benham, Route 367 @ Redman-Benham, and Route 367 @ Dunn-Benham. All three signals were taken out of coordination and forced to run free. At 7:00 am all Southbound lanes on Route 367 were opened and the signal timing was returned to normal.
- **Result:** Adjustments were successful in improving the flow of detouring traffic and reducing delays.

11/27/2012 (Tuesday)

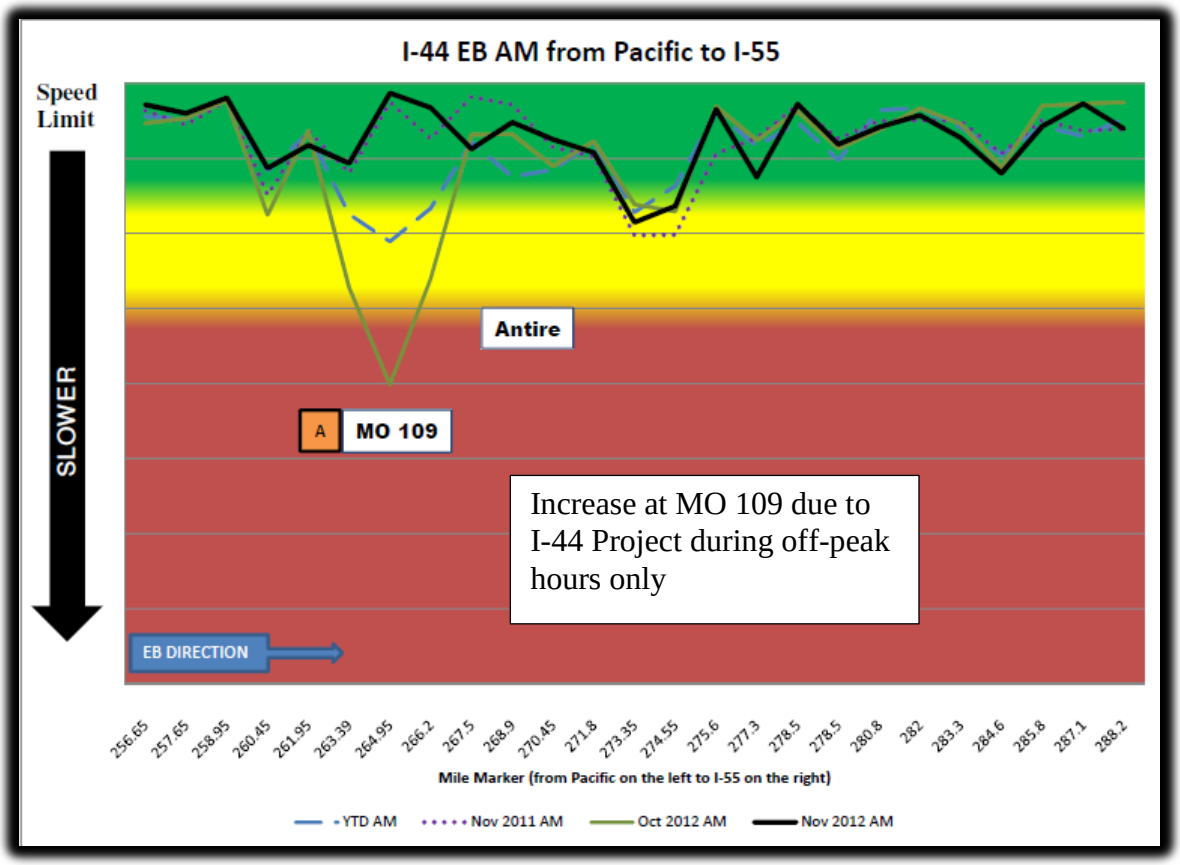
- **Location:** St. Louis County - Northbound US 67 at Conway Road
- **Event:** Crash closed right lane
- **Time:** 8:00 am – 8:25 am **Total Time:** 25 minutes
- **Action:** Signals were taken off normal timing plan and actuated to provide more time for Northbound US 67
- **Result:** The extra time allowed a few more vehicles to get through the signal at Conway each cycle, keeping the queue from extending south of I-64. A tow truck closed both lanes of Northbound US 67 at Conway for approximately five minutes creating a queue that extended just south of Plaza Frontenac. Once the crash was cleared at 8:10 am the queue took an additional 15 minutes to clear. The signal was returned to normal operation at 8:25 am.

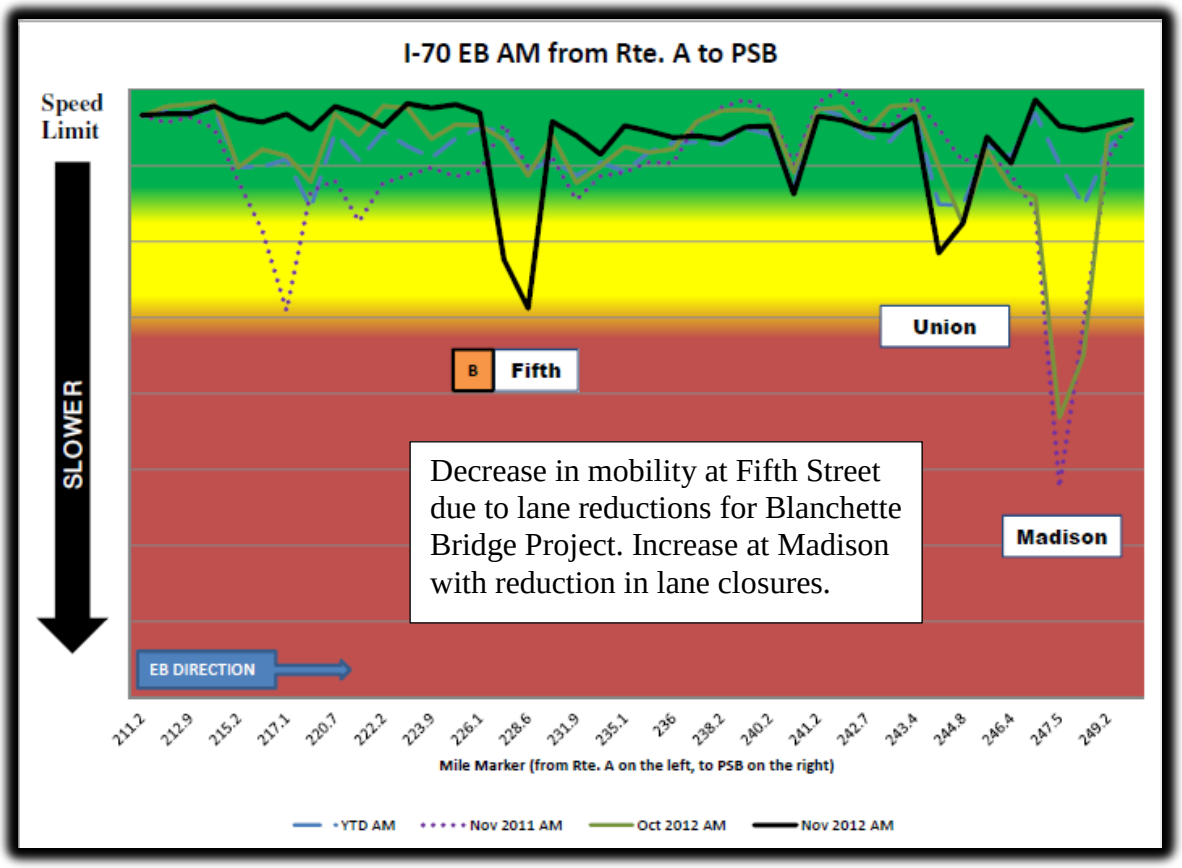


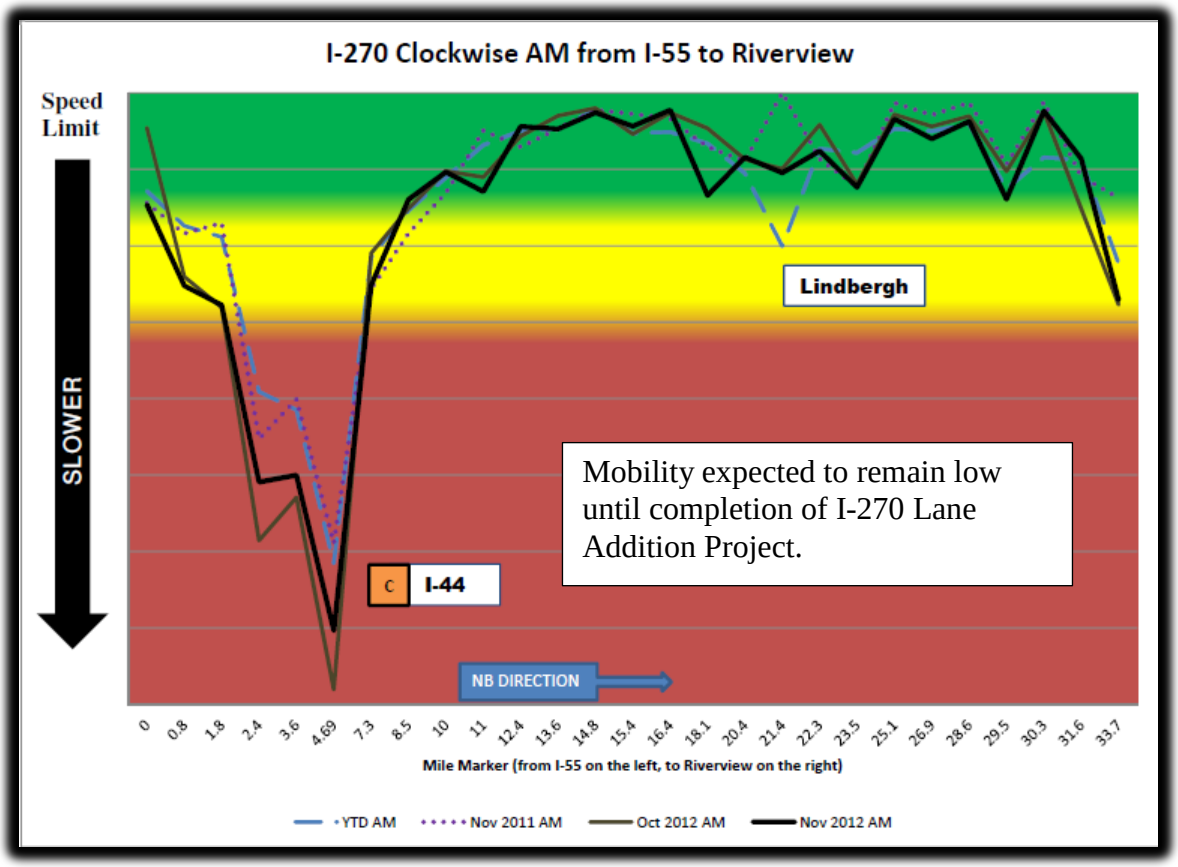
AM Peak Changes in November 2012

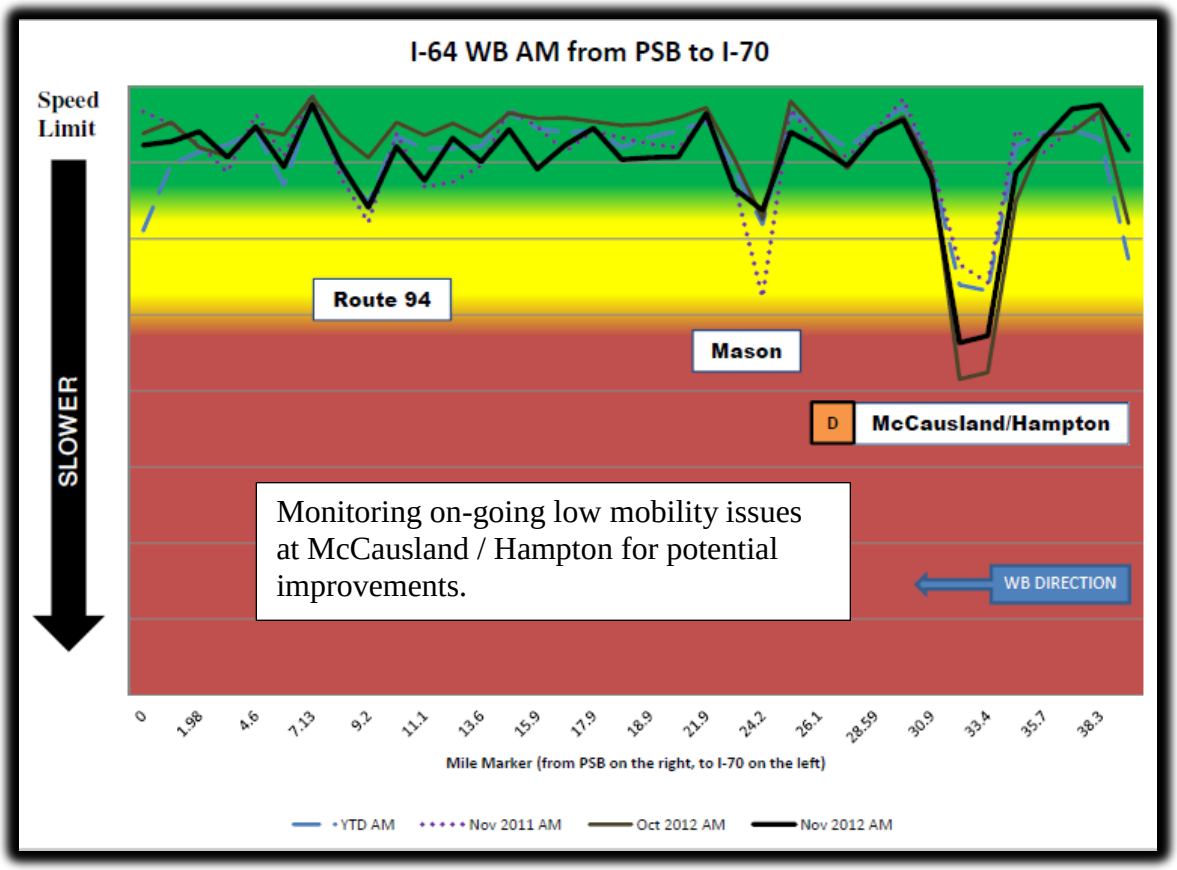
A	Mobility Increased
B	Mobility Decreased
C D	Mobility Remained Low

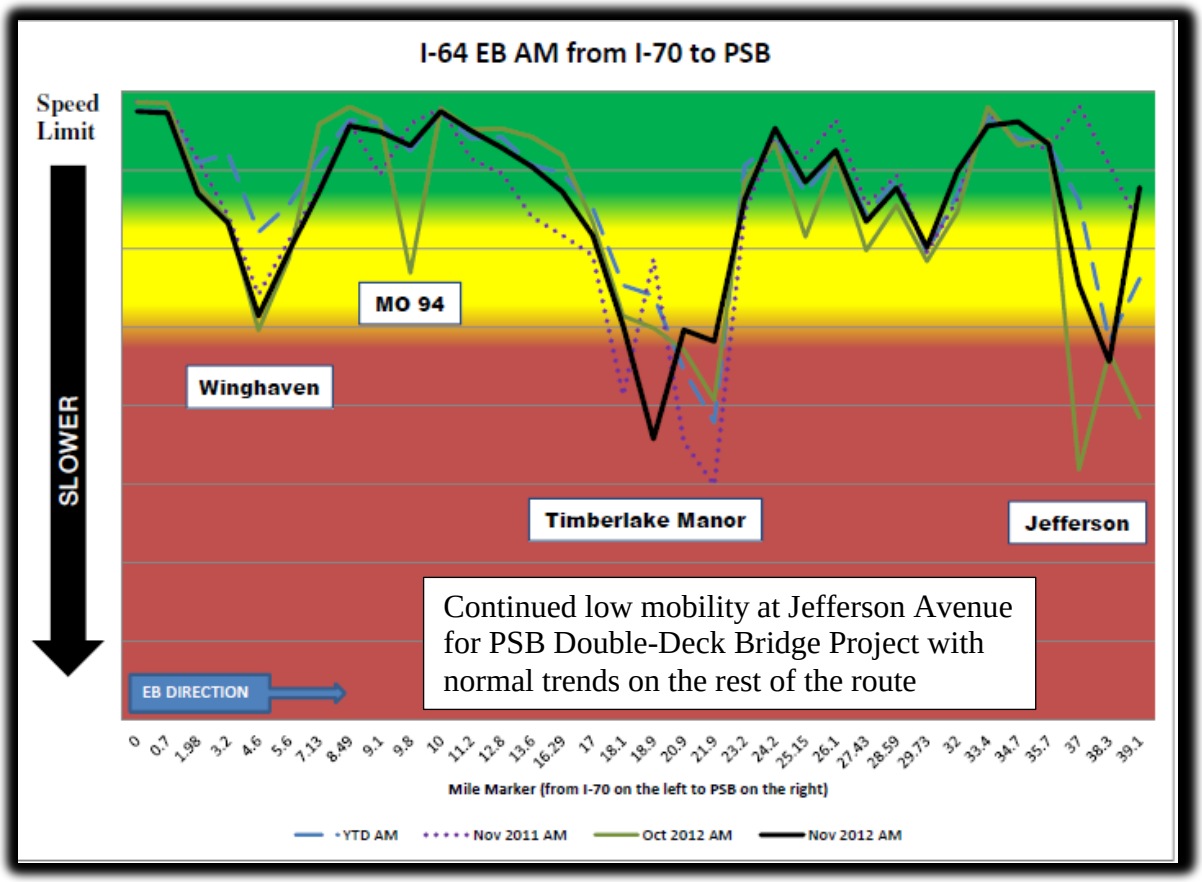
*All weekdays are included in speed index calculation

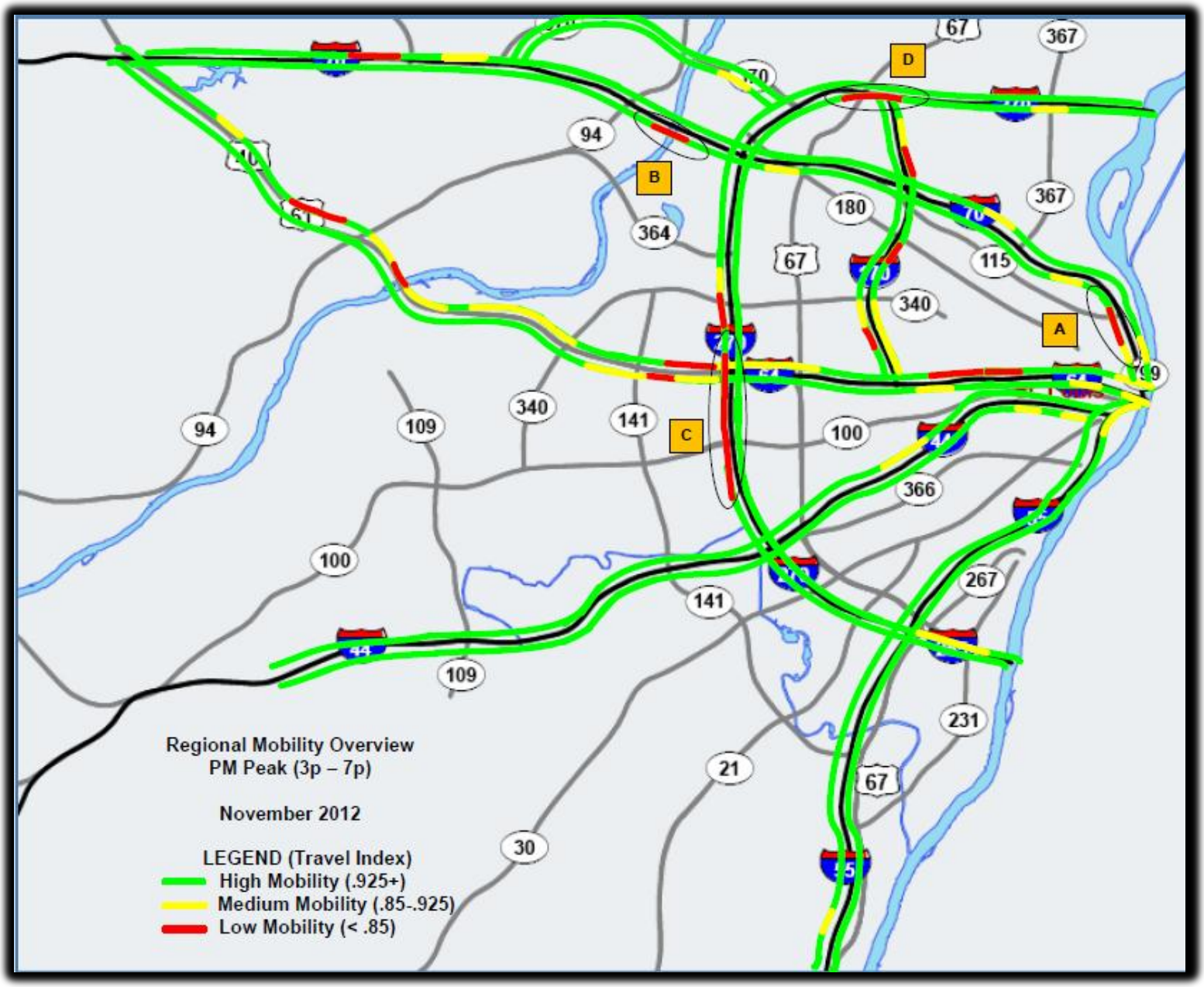

I-44 EB AM from Pacific to I-55
Speed Limit
SLOWER
Antire
A
MO 109
Increase at MO 109 due to I-44 Project during off-peak hours only
EB DIRECTION
256.65
257.65
258.95
260.45
261.95
263.39
264.95
266.2
267.5
268.9
270.45
271.8
273.35
274.55
275.6
277.3
278.5
278.5
280.8
282
283.3
284.6
285.8
287.1
288.2
Mile Marker (from Pacific on the left to I-55 on the right)
YTD AM
Nov 2011 AM
Oct 2012 AM
Nov 2012 AM


I-70 EB AM from Rte. A to PSB
Speed Limit
SLOWER
Union
B
Fifth
Madison
Decrease in mobility at Fifth Street due to lane reductions for Blanchette Bridge Project. Increase at Madison with reduction in lane closures.
EB DIRECTION
211.2
212.9
215.2
217.1
220.7
222.2
223.9
226.1
228.6
231.9
235.1
236
238.2
240.2
241.2
242.7
243.4
244.8
246.4
247.5
249.2
Mile Marker (from Rte. A on the left, to PSB on the right)
YTD AM
Nov 2011 AM
Oct 2012 AM
Nov 2012 AM


I-270 Clockwise AM from I-55 to Riverview
Speed Limit
SLOWER
Lindbergh
C I-44
Mobility expected to remain low until completion of I-270 Lane Addition Project.
NB DIRECTION
0 0.8 1.8 2.4 3.6 4.69 7.3 8.5 10 11 12.4 13.6 14.8 15.4 16.4 18.1 20.4 21.4 22.3 23.5 25.1 26.9 28.6 29.5 30.3 31.6 33.7
Mile Marker (from I-55 on the left, to Riverview on the right)
YTD AM
Nov 2011 AM
Oct 2012 AM
Nov 2012 AM


I-64 WB AM from PSB to I-70
Speed Limit
SLOWER
Route 94
Mason
D McCausland/Hampton
Monitoring on-going low mobility issues at McCausland / Hampton for potential improvements.
WB DIRECTION
0 1.98 4.6 7.13 9.2 11.1 13.6 15.9 17.9 18.9 21.9 24.2 26.1 28.59 30.9 33.4 35.7 38.3
Mile Marker (from PSB on the right, to I-70 on the left)
YTD AM
Nov 2011 AM
Oct 2012 AM
Nov 2012 AM

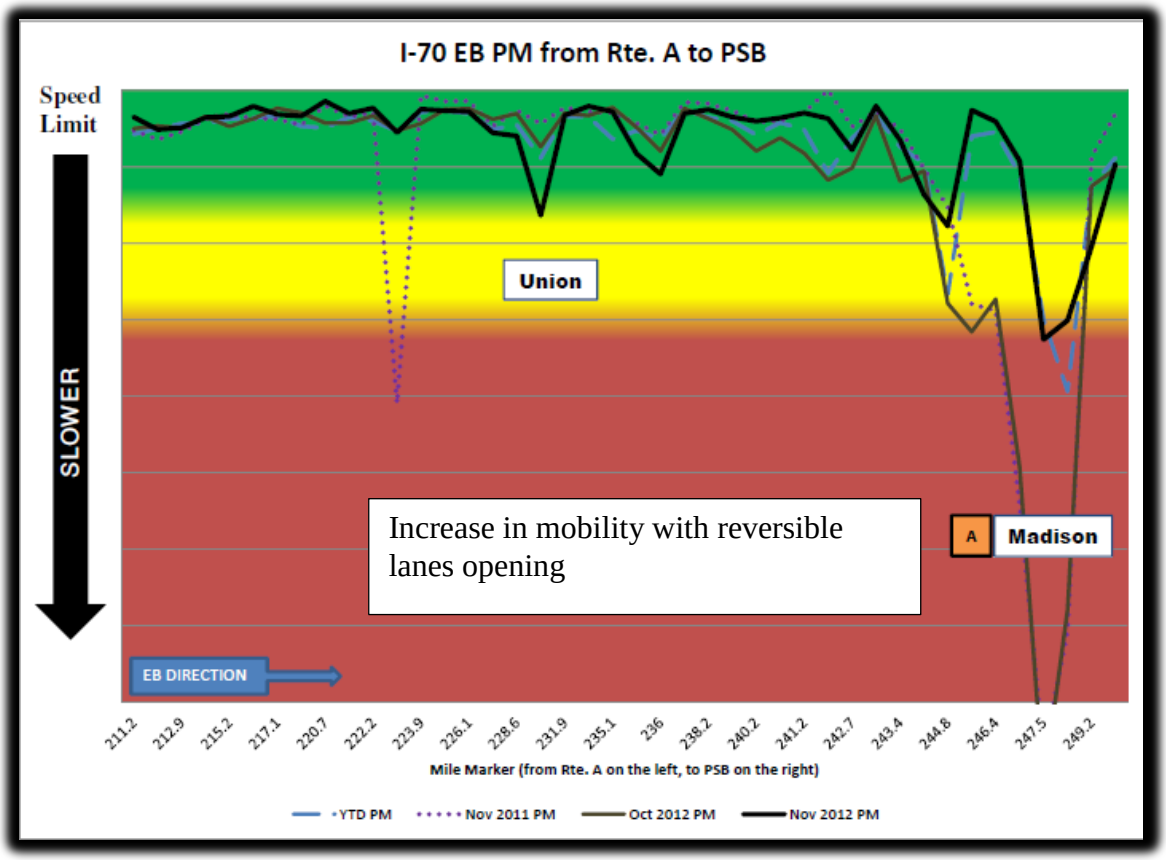

I-64 EB AM from I-70 to PSB
Speed Limit
SLOWER
MO 94
Winghaven
Timberlake Manor
Jefferson
EB DIRECTION
Continued low mobility at Jefferson Avenue for PSB Double-Deck Bridge Project with normal trends on the rest of the route
0 0.7 1.98 3.2 4.6 5.6 7.13 8.49 9.1 9.8 10 11.2 12.8 13.6 16.29 17 18.1 18.9 20.9 21.9 23.2 24.2 25.15 26.1 27.43 28.59 29.73 32 33.4 34.7 35.7 37 38.3 39.1
Mile Marker (from I-70 on the left to PSB on the right)
YTD AM
Nov 2011 AM
Oct 2012 AM
Nov 2012 AM

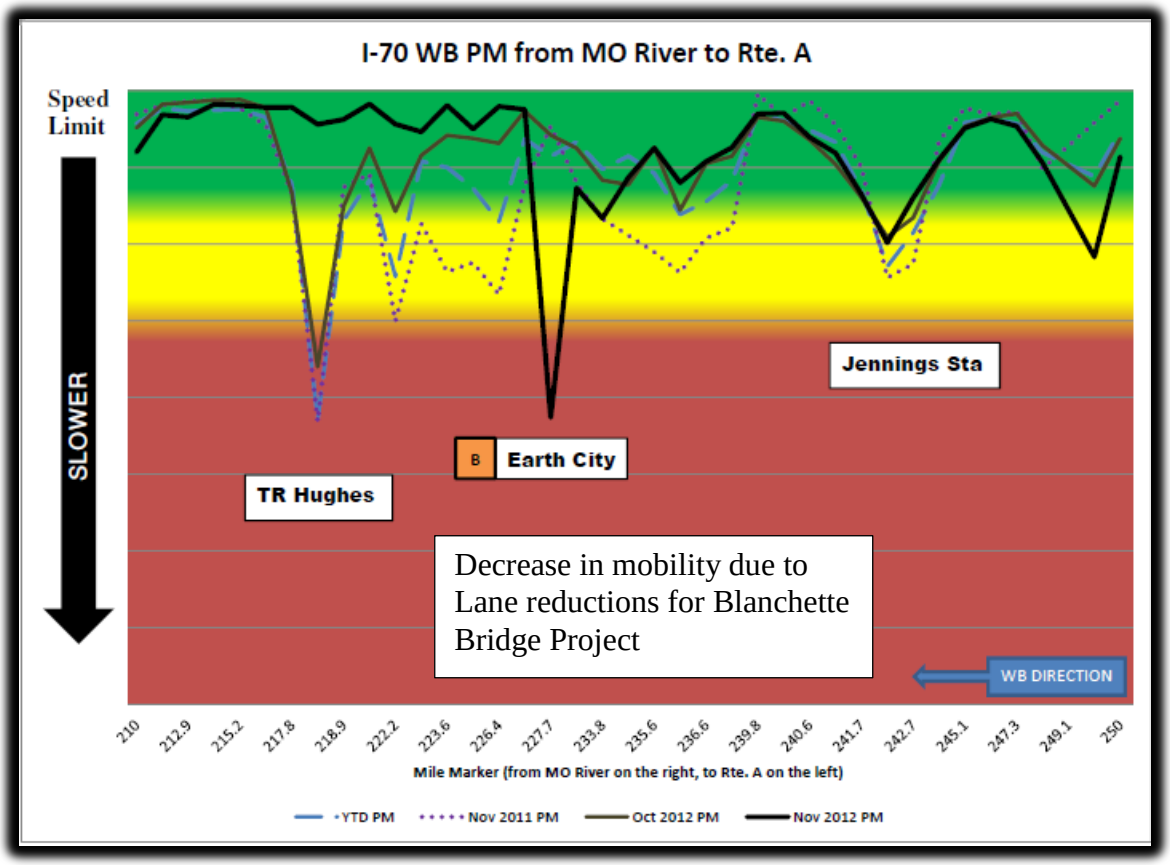


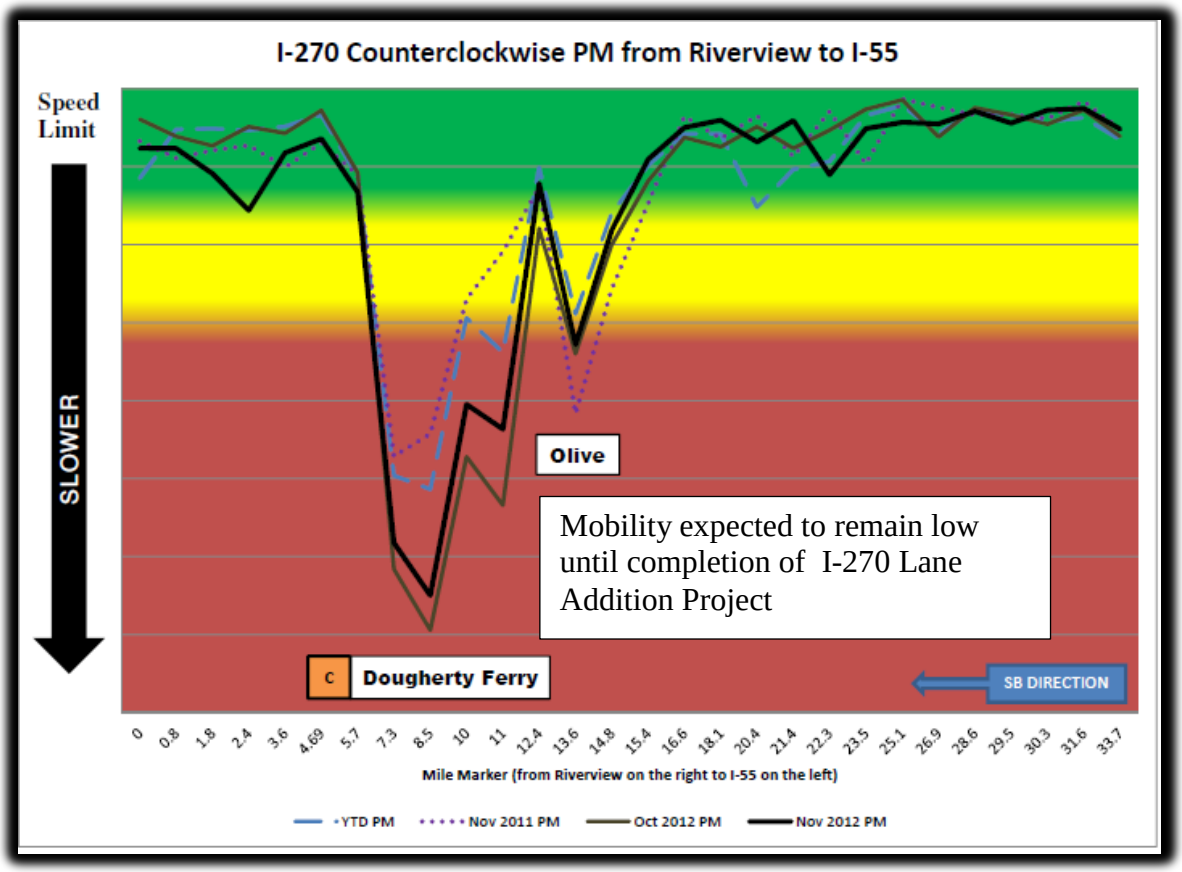
PM Peak Changes in November 2012

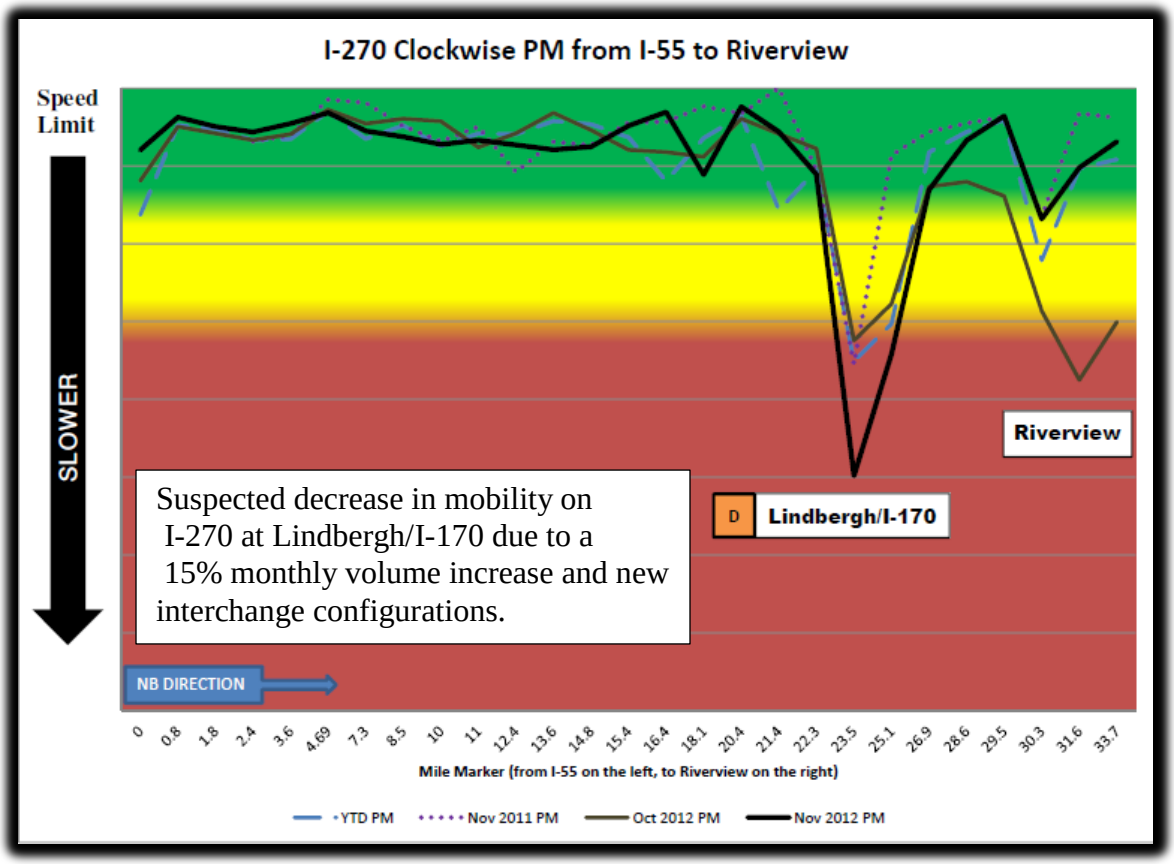
A	Mobility Increased
B D	Mobility Decreased
C	Mobility Remained Low

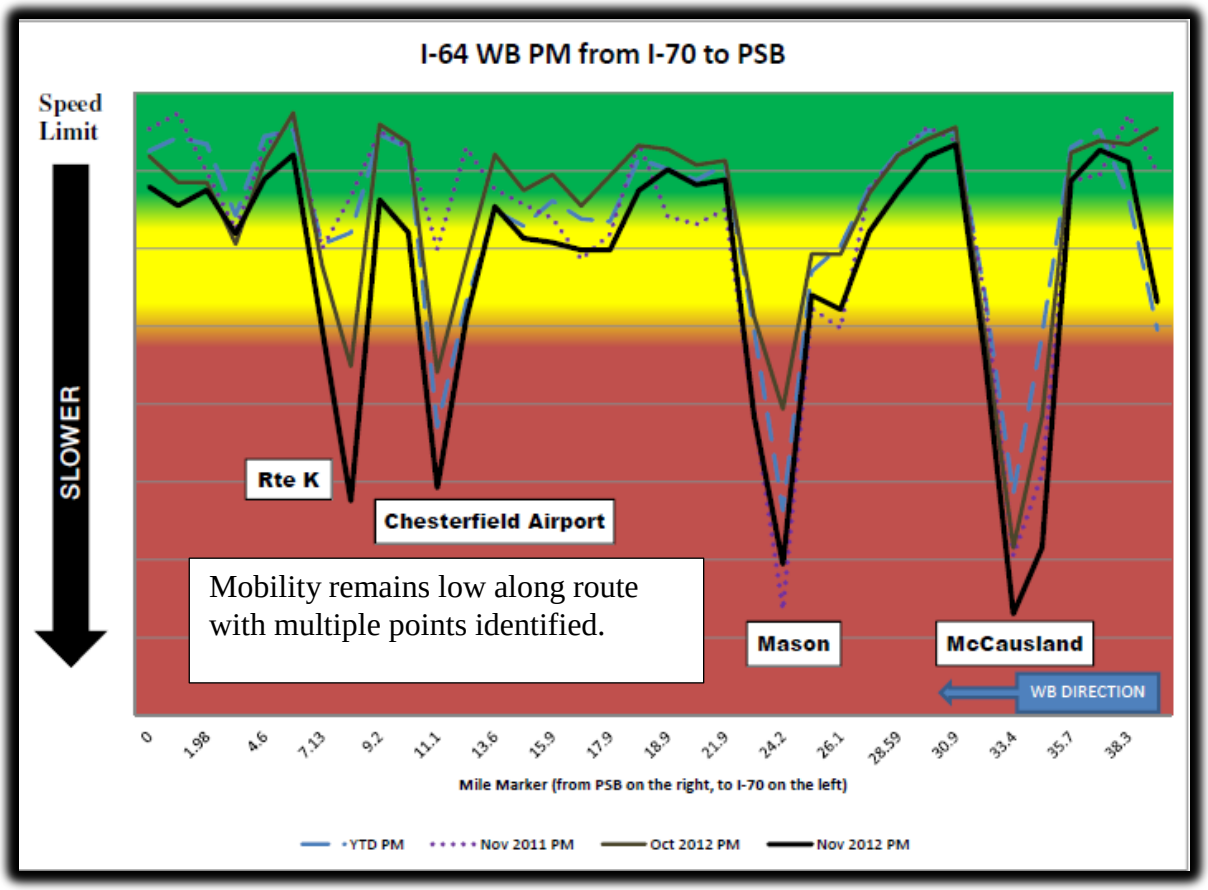
*All weekdays are included in speed index calculation


I-70 EB PM from Rte. A to PSB
Speed Limit
SLOWER
Union
Increase in mobility with reversible lanes opening
A
Madison
EB DIRECTION
211.2
212.9
215.2
217.1
220.7
222.2
223.9
226.1
228.6
231.9
235.1
236
238.2
240.2
241.2
242.7
243.4
244.8
246.4
247.5
249.2
Mile Marker (from Rte. A on the left, to PSB on the right)
YTD PM
Nov 2011 PM
Oct 2012 PM
Nov 2012 PM


I-70 WB PM from MO River to Rte. A
Speed Limit
SLOWER
Jennings Sta
B
Earth City
TR Hughes
Decrease in mobility due to Lane reductions for Blanchette Bridge Project
WB DIRECTION
210
212.9
215.2
217.8
218.9
222.2
223.6
226.4
227.7
233.8
235.6
236.6
239.8
240.6
241.7
242.7
245.1
247.3
249.1
250
Mile Marker (from MO River on the right, to Rte. A on the left)
YTD PM
Nov 2011 PM
Oct 2012 PM
Nov 2012 PM


I-270 Counterclockwise PM from Riverview to I-55
Speed Limit
SLOWER
Olive
Mobility expected to remain low until completion of I-270 Lane Addition Project
C
Dougherty Ferry
SB DIRECTION
0 0.8 1.8 2.4 3.6 4.69 5.7 7.3 8.5 10 11 12.4 13.6 14.8 15.4 16.6 18.1 20.4 21.4 22.3 23.5 25.1 26.9 28.6 29.5 30.3 31.6 33.7
Mile Marker (from Riverview on the right to I-55 on the left)
YTD PM
Nov 2011 PM
Oct 2012 PM
Nov 2012 PM


I-270 Clockwise PM from I-55 to Riverview
Speed Limit
SLOWER
Riverview
Suspected decrease in mobility on I-270 at Lindbergh/I-170 due to a 15% monthly volume increase and new interchange configurations.
D
Lindbergh/I-170
NB DIRECTION
0 0.8 1.8 2.4 3.6 4.69 7.3 8.5 10 11 12.4 13.6 14.8 15.4 16.4 18.1 20.4 21.4 22.3 23.5 25.1 26.9 28.6 29.5 30.3 31.6 33.7
Mile Marker (from I-55 on the left, to Riverview on the right)
YTD PM
Nov 2011 PM
Oct 2012 PM
Nov 2012 PM


I-64 WB PM from I-70 to PSB
Speed Limit
SLOWER
Rte K
Chesterfield Airport
Mason
McCausland
WB DIRECTION
Mobility remains low along route with multiple points identified.
0
1.98
4.6
7.13
9.2
11.1
13.6
15.9
17.9
18.9
21.9
24.2
26.1
28.59
30.9
33.4
35.7
38.3
Mile Marker (from PSB on the right, to I-70 on the left)
YTD PM
Nov 2011 PM
Oct 2012 PM
Nov 2012 PM

Blanchette Bridge Traffic Summary
Week 1, November 5th-November 9th, 2012

Method of Measurement and Reporting

Daily peak period reporting was configured to generate travel times and volumes for segments of freeways and arterials that were anticipated to be affected by the bridge construction. A "virtual DMS" was created for each roadway segment in order to produce the travel times along the segments in 15 minute intervals during each peak reporting period. Also, the aggregated volumes for each 15 minute interval at each river bridge crossing were recorded to determine the peak hour within the peak period.

All values were compared to a baseline travel time or baseline volume value. The baseline values were determined from a representative sample of the traffic conditions prior to the start of the construction project. As the week progressed, the values were also compared to the previous day.

The baseline travel time values and segments were as follows:

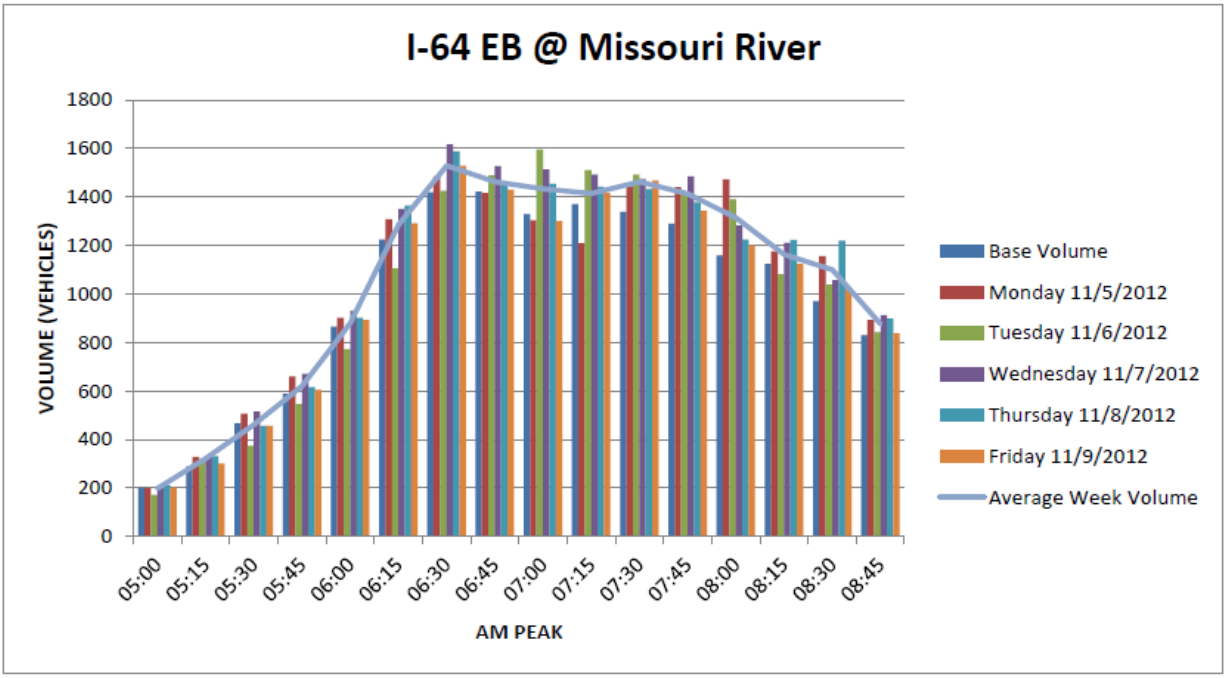
November 5th-9th, 2012 Travel Time Summary

Route	Direction	Segment	AM Maximum Travel Time (min)						PM Maximum Travel Times (min)					
			AM Base	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	PM Base	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov
MO 370	EB	I-70 (MP 0.60) to I-270 (MP 11.80)	11	13	11	15	12	11	11	11	11	11	11	11
MO 370	WB	I-270 (MP 11.80) to I-70 (MP 0.60)	11	12	11	11	11	11	11	11	11	11	11	11
I-64	EB	MO 94 (MP 10.00) to MO 340 (MP 18.90)	8-9	12	28	10	10	8	8	8	8	8	9	8
I-64	EB	MO 340 (MP 18.90) to I-270 (25.15)	6-9	13	7	11	10	7	6-10	7	15	9	10	10
I-70	EB	MO 370 (MP 223.90) to MO 94 (MP 228.60)	4	5	4	5	7	4	4	4	4	4	4	4
I-70	EB	MO 94 (MP 228.60) to I-270 (MP 232.70)	4	4	4	4	5	4	4	4	4	4	4	4
I-270	NB	I-64 (MP 12.40) to MO 364 (MP 16.40)	4	4	4	4	4	4	4	4	4	4	4	4
I-270	NB	MO 364 (MP 16.40) to I-70 (MP 20.00)	3	3	3	3	3	3	3	3	3	3	3	3
I-270	NB	I-70 (MP 20.00) to MO 370 (MP 22.30)	2	2	2	2	2	2	2	2	2	2	2	2
I-270	SB	MO 370 (MP 22.30) to I-70 (MP 20.00)	2	2	2	2	2	2	2	2	2	2	2	2
I-270	SB	MO 364 (MP 16.60) to I-64 (MP 12.40)	4	4	4	4	4	4	4-9	4	7	6	10	8
I-270	SB	I-70 (MP 20.00) to MO 364 (MP 16.60)	3	3	3	3	3	3	3	3	3	3	6	3
I-64	WB	I-270 (MP 25.15) to MO 340 (MP 18.90)	6-8	7	12	6	6	6	6-7	7	7	7	7	9
I-64	WB	MO 340 (MP 18.90) to MO 94 (MP 10.00)	8-9	65	9	9	9	9	8-11	9	11	14	20	19
MO 364	EB	MO 94 split (MP 14.80) to I-270 (MP 20.00)	4	6	5	4	5	4	4-5	4	4	4	4	4
MO 364	WB	I-270 (MP 20.00) to MO 94 split (MP 9.90)	9	9	9	9	9	9	9	9	9	9	9	9
MO 94	EB	MO 364 to I-70	2-5	6	4	4	4	3	4-6	5	6	6	6	5
MO 94	WB	I-70 to MO 364	2-3	3	2	3	4	3	2-4	3	3	3	4	3
I-70	WB	MO 94 (MP 227.70) to MO 370 (MP 223.60)	4	4	4	4	4	4	4	4	4	4	4	4
I-70	WB	I-270 (MP 232.70) to MO 94 (MP 229.30)	3	3	3	3	3	3	3	3	5	5	5	6
MO 364	WB	MO 94 split to Mid Rivers	4	5	4	4	4	4	4	4	4	7	4	4
MO 364	EB	Mid Rivers to MO 94 split	3-4	4	4	4	4	4	3-4	4	4	4	4	4
MO 94	EB	I-64 to Mid Rivers	6	6	7	6	6	8	6-12	7	6	9	11	6
MO 94	WB	Mid Rivers to I-64	6	10	8	7	7	7	6-8	6	6	7	8	10
MO 141	NB	I-64 to MO 364	6-9	11	7	7	9	8	6-9	7	34	8	8	10
MO 141	SB	MO 364 to I-64	6-16	10	11	10	9	9	7-10	12	8	10	10	11
MO 141	NB	MO 364 to MO 370	9-13	12	12	9	11	11	9-10	11	10	11	10	11
MO 141	SB	MO 370 to MO 364	9-11	13	10	10	9	14	9	12	10	9	9	9

Overall, there were no increases to the base line travel times as a result of a redistribution of the traffic volumes related to the bridge work. Any increases in the travel times were temporary based on incidents or crashes.

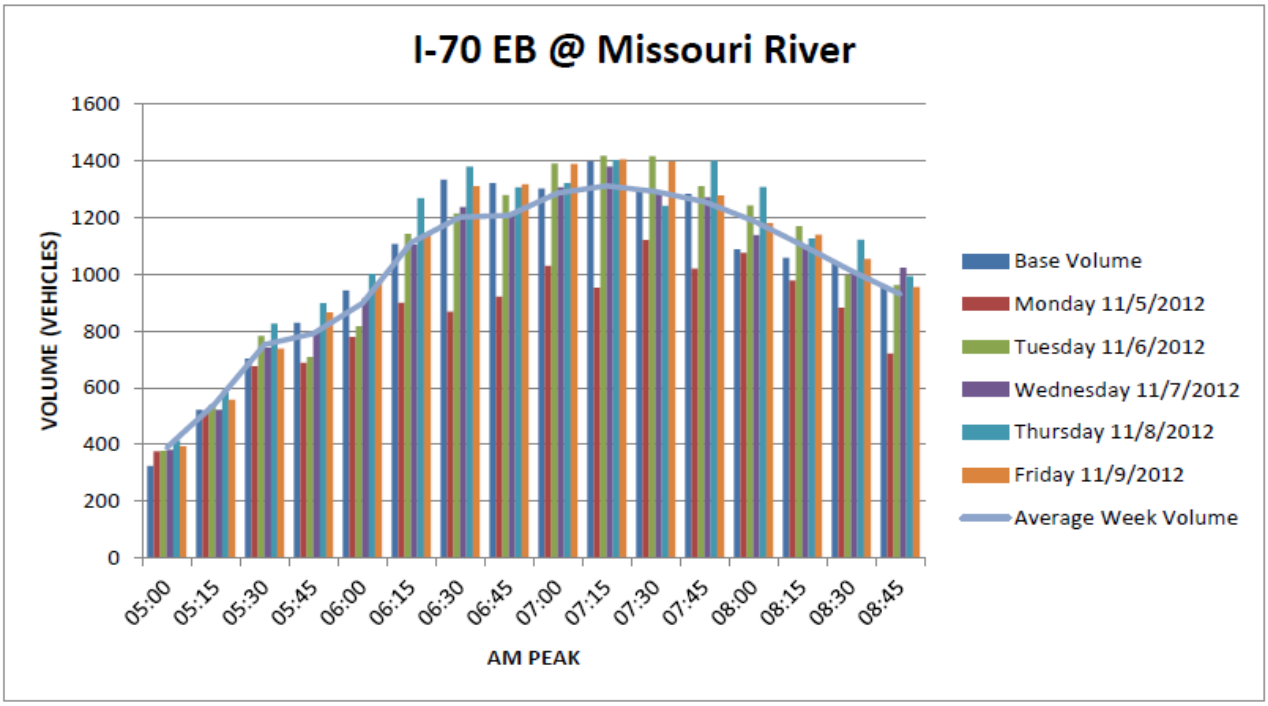
AM Peak Period

Attached below is the supporting data for each of the East Bound (EB) river crossings along with a graphical representation of the data.



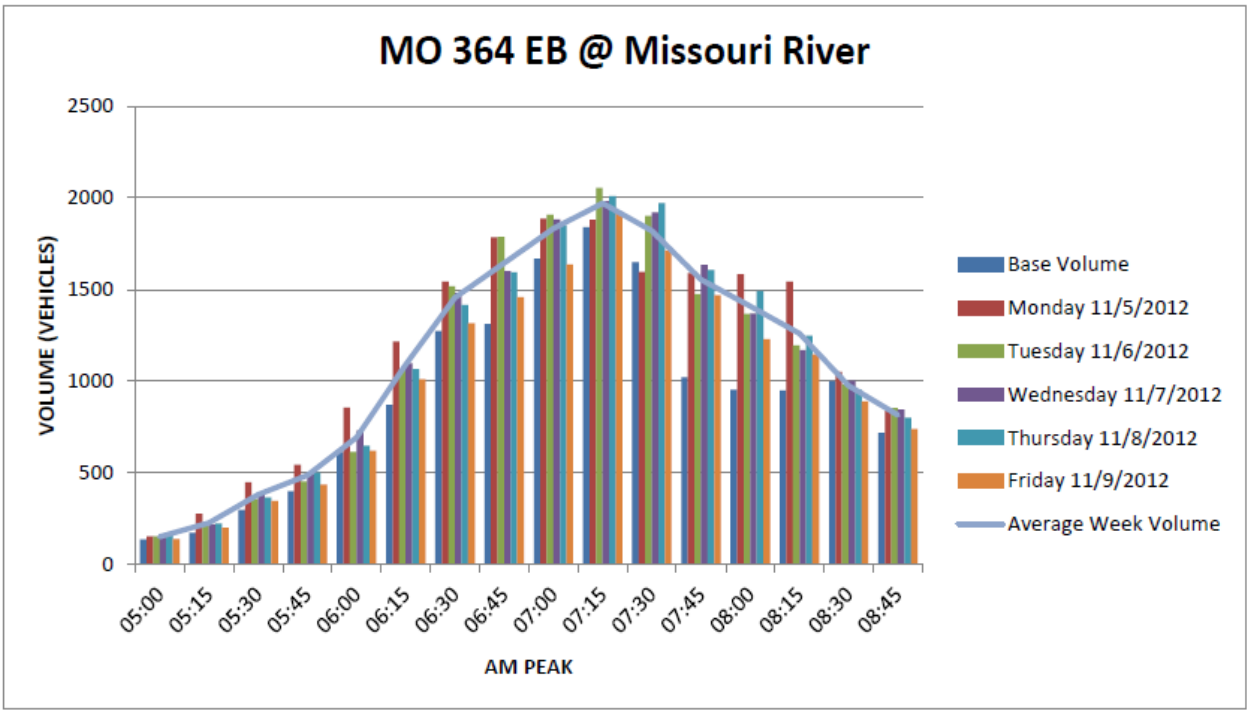
I-64 EB @ Missouri River							
	Base Volume	Monday 11/5/2012	Tuesday 11/6/2012	Wednesday 11/7/2012	Thursday 11/8/2012	Friday 11/9/2012	Average Week Volume
05:00	200	198	171	209	211	201	198
05:15	288	328	318	328	332	300	321
05:30	466	506	373	515	455	456	461
05:45	589	660	546	671	616	606	620
06:00	865	901	772	931	901	893	880
06:15	1225	1309	1106	1352	1365	1292	1285
06:30	1420	1484	1426	1618	1589	1529	1529
06:45	1422	1416	1489	1527	1453	1430	1463
07:00	1330	1304	1596	1514	1455	1301	1434
07:15	1370	1210	1511	1493	1442	1416	1414
07:30	1338	1445	1493	1474	1434	1468	1463
07:45	1290	1440	1420	1485	1378	1342	1413
08:00	1158	1473	1391	1282	1225	1200	1314
08:15	1125	1176	1082	1211	1223	1123	1163
08:30	970	1156	1039	1057	1220	1026	1100
08:45	830	892	843	912	899	838	877
Peak Hour Vol	5542	5568	6089	6152	5939	5676	5841
Total Peak Vol	15886	16898	16576	17579	17198	16421	16934

I-64 EB had little to no change in traffic volumes as a result of the bridge work on I-70. The peak hours fluctuated slightly with relatively equal volumes from 6:15 am – 8:15 am.



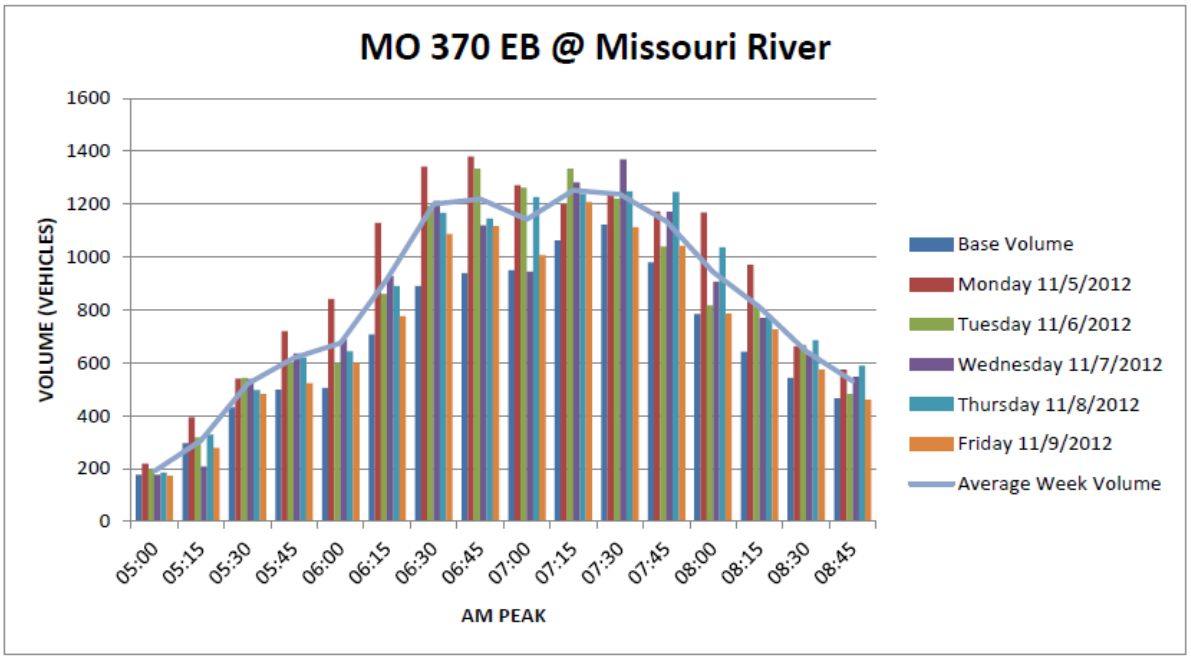
I-70 EB @ Missouri River							
	Base Volume	Monday 11/5/2012	Tuesday 11/6/2012	Wednesday 11/7/2012	Thursday 11/8/2012	Friday 11/9/2012	Average Week Volume
05:00	325	376	378	381	414	393	388
05:15	523	519	540	523	592	558	546
05:30	702	676	782	741	826	738	753
05:45	829	688	708	795	899	866	791
06:00	943	779	816	917	1002	973	897
06:15	1108	900	1143	1104	1268	1146	1112
06:30	1334	869	1214	1238	1380	1310	1202
06:45	1321	922	1280	1212	1307	1317	1208
07:00	1302	1030	1390	1307	1322	1389	1288
07:15	1399	953	1417	1380	1403	1406	1312
07:30	1298	1121	1416	1285	1242	1398	1292
07:45	1283	1021	1310	1271	1400	1278	1256
08:00	1088	1076	1243	1139	1308	1181	1189
08:15	1058	978	1170	1102	1126	1140	1103
08:30	1041	883	996	1009	1122	1054	1013
08:45	953	720	963	1023	994	955	931
Peak Hour Vol	5356	4196	5533	5243	5367	5510	5148
Total Peak Vol	16507	13511	16766	16427	17605	17102	16282

I-70 EB had greatly reduced volumes from the baseline on Monday, November 5th, but drivers slowly began to return to I-70 during the AM peak period as the week progressed. If drivers continue to return to I-70, travel times will continue to increase.



MO 364 E @ Missouri River							
	Base Volume	Monday 11/5/2012	Tuesday 11/6/2012	Wednesday 11/7/2012	Thursday 11/8/2012	Friday 11/9/2012	Average Week Volume
05:00	136	154	154	151	160	139	152
05:15	172	278	209	221	224	201	227
05:30	298	450	357	388	367	346	382
05:45	400	544	454	495	503	436	486
06:00	616	857	615	731	648	620	694
06:15	870	1217	1062	1097	1066	1011	1091
06:30	1274	1544	1518	1481	1417	1317	1455
06:45	1312	1786	1787	1600	1594	1457	1645
07:00	1668	1886	1908	1882	1851	1635	1832
07:15	1840	1879	2053	1983	2009	1925	1970
07:30	1648	1597	1901	1920	1971	1712	1820
07:45	1020	1588	1475	1634	1607	1469	1555
08:00	954	1582	1367	1370	1492	1231	1408
08:15	948	1543	1195	1171	1248	1147	1261
08:30	1000	1051	982	1002	954	889	976
08:45	718	836	853	846	802	739	815
Peak Hour Vol	6468	7148	7649	7419	7438	6741	7267
Total Peak Vol	14874	18792	17890	17972	17913	16274	17768

MO 364 EB had higher volumes than the baseline throughout the week, but the greatest increase in volume was on Monday, November 5th. As stated above, after Monday, November 5th, drivers slowly began to return to I-70 during the AM peak period.

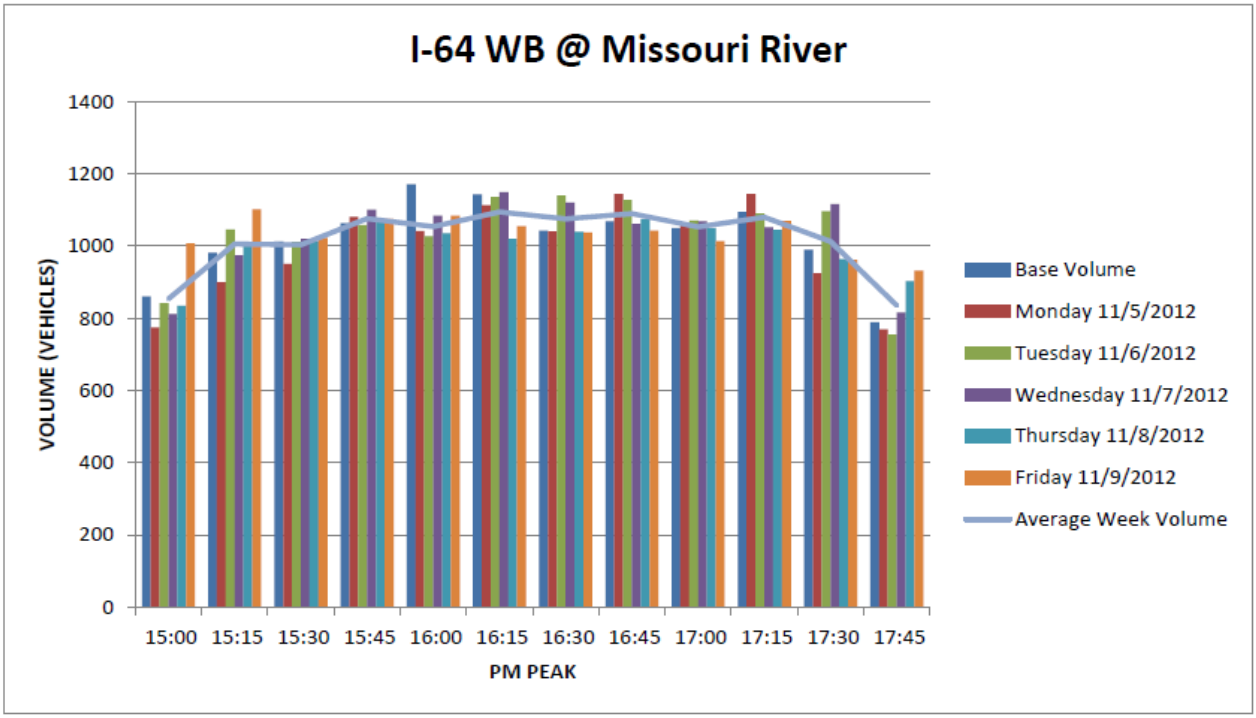


MO 370 EB @ Missouri River							
	Base Volume	Monday 11/5/2012	Tuesday 11/6/2012	Wednesday 11/7/2012	Thursday 11/8/2012	Friday 11/9/2012	Average Week Volume
05:00	176	219	198	176	185	171	190
05:15	296	394	318	208	329	278	305
05:30	432	540	543	538	496	482	520
05:45	498	718	596	635	620	522	618
06:00	504	841	600	688	643	598	674
06:15	707	1129	861	928	890	776	917
06:30	890	1341	1192	1211	1167	1087	1200
06:45	939	1380	1334	1119	1145	1116	1219
07:00	950	1271	1262	945	1227	1007	1142
07:15	1063	1198	1333	1282	1238	1208	1252
07:30	1122	1236	1220	1368	1248	1113	1237
07:45	980	1172	1040	1171	1245	1042	1134
08:00	784	1168	816	906	1036	785	942
08:15	642	970	813	769	776	726	811
08:30	542	661	667	630	685	573	643
08:45	465	574	482	546	588	460	530
Peak Hour Vol	4115	5190	5149	4766	4958	4444	4850
Total Peak Vol	10990	14812	13275	13120	13518	11944	13334

MO 370 also had an increase in traffic volumes as expected since this is the signed detour route. However, similar to MO 364, the greatest increase in volumes was on Monday, November 5th with drivers returning to I-70 throughout the week.

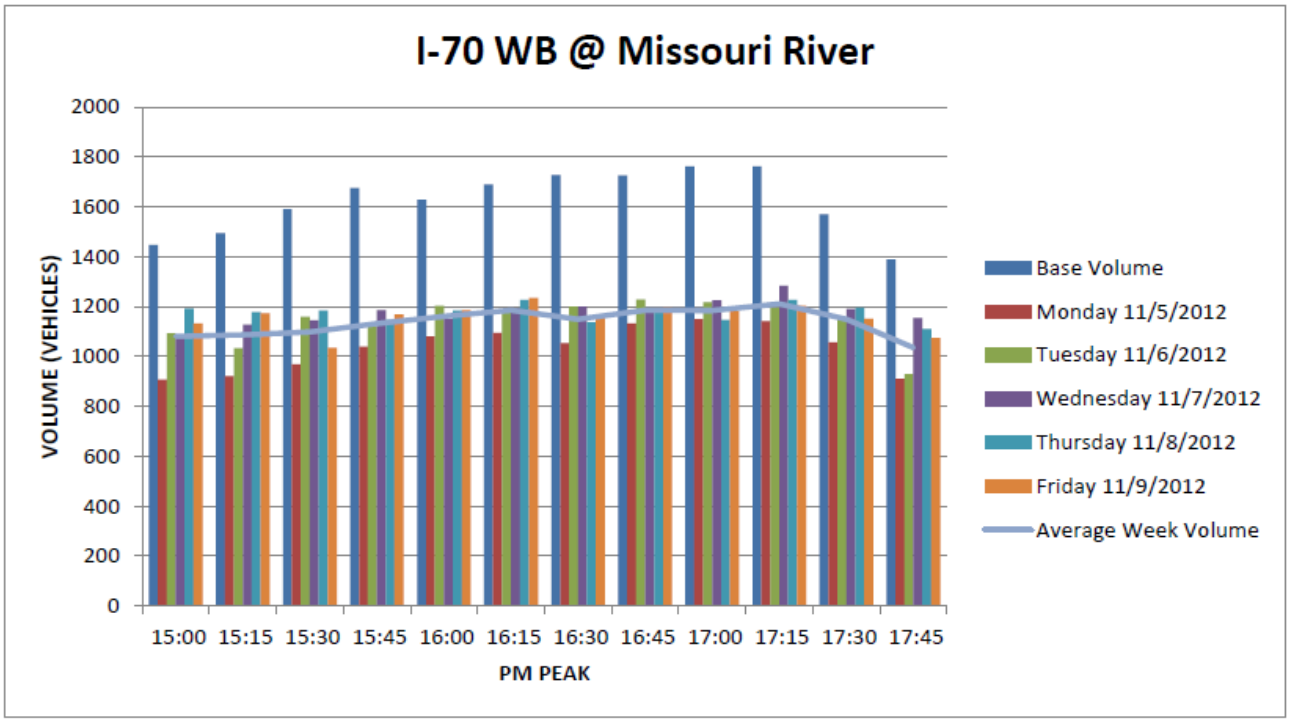
PM Peak Period

Similarly, attached below is the supporting data for each of the West Bound (WB) river crossings along with a graphical representation of the data.



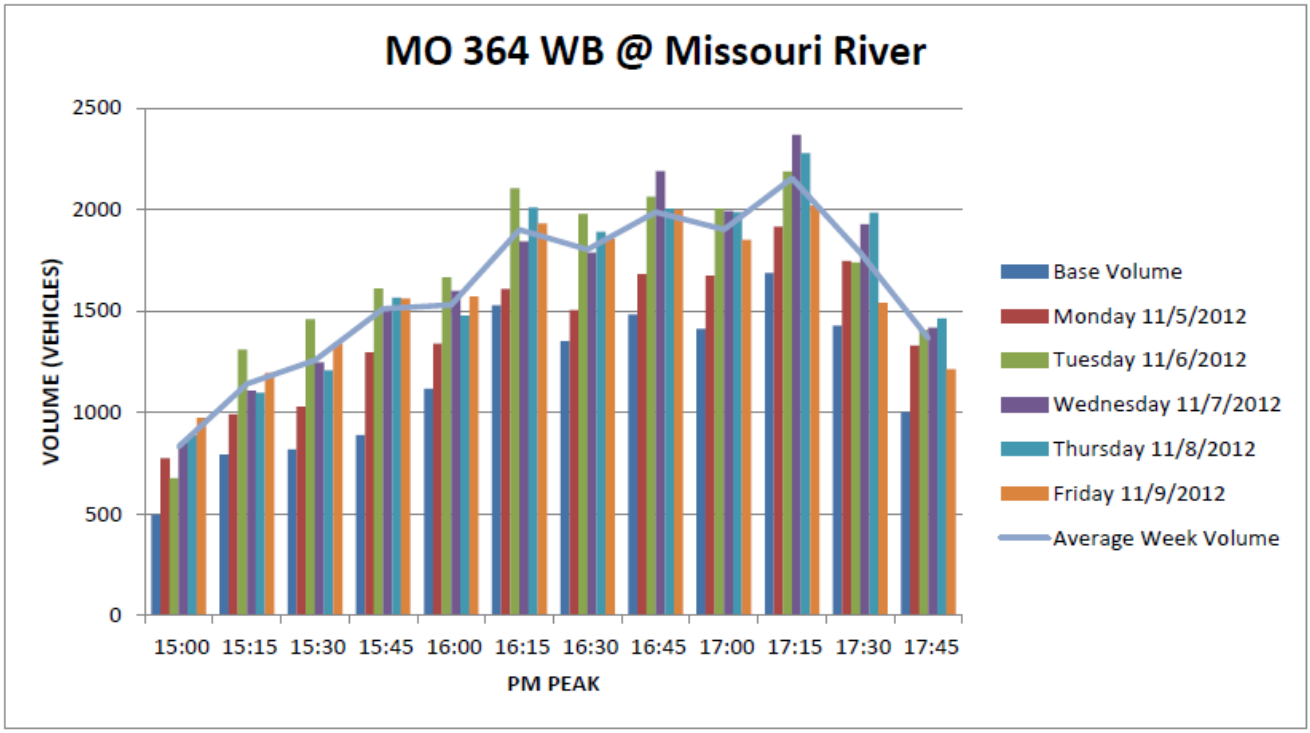
I-64 WB @ Missouri River							
	Base Volume	Monday 11/5/2012	Tuesday 11/6/2012	Wednesday 11/7/2012	Thursday 11/8/2012	Friday 11/9/2012	Average Week Volume
15:00	860	774	842	811	834	1007	854
15:15	981	900	1046	974	1005	1101	1005
15:30	1012	950	1011	1020	1014	1022	1003
15:45	1063	1081	1057	1100	1067	1074	1076
16:00	1171	1041	1027	1083	1035	1083	1054
16:15	1143	1113	1135	1149	1020	1055	1094
16:30	1043	1040	1140	1120	1039	1037	1075
16:45	1068	1144	1127	1061	1074	1043	1090
17:00	1050	1062	1070	1068	1050	1014	1053
17:15	1094	1144	1090	1051	1044	1069	1080
17:30	989	924	1096	1116	963	961	1012
17:45	789	769	754	815	903	932	835
Peak Hour Vol	4425	4390	4472	4452	4207	4249	4313
Total Peak Vol	12263	11942	12395	12368	12048	12398	12230

Identical to the AM peak period, I-64 WB had little to no change in traffic volumes as a result of the I-70 bridge work. Volumes were consistent throughout the week compared to the baseline.



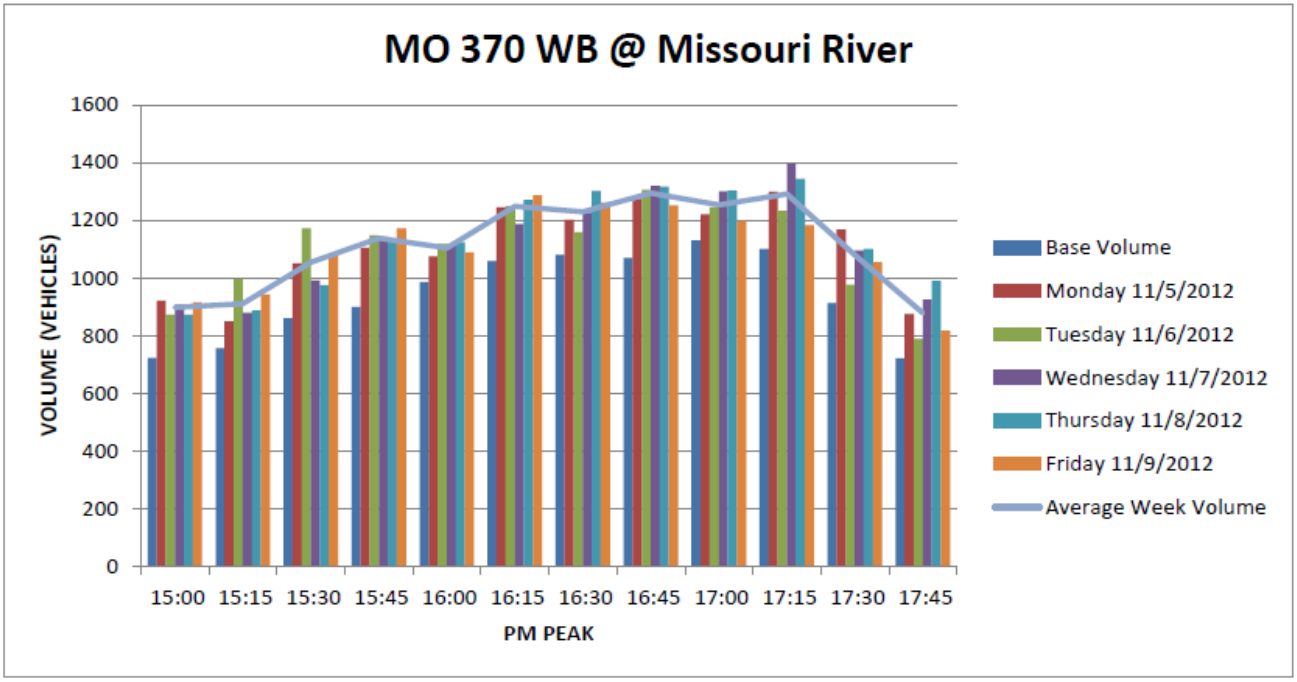
I-70 WB @ Missouri River							
	Base Volume	Monday 11/5/2012	Tuesday 11/6/2012	Wednesday 11/7/2012	Thursday 11/8/2012	Friday 11/9/2012	Average Week Volume
15:00	1446	906	1092	1077	1192	1133	1080
15:15	1494	921	1033	1127	1177	1172	1086
15:30	1589	968	1158	1144	1184	1035	1098
15:45	1675	1040	1121	1185	1147	1168	1132
16:00	1628	1080	1203	1151	1184	1186	1161
16:15	1689	1094	1178	1193	1227	1234	1185
16:30	1728	1054	1200	1200	1138	1156	1150
16:45	1725	1133	1228	1189	1184	1194	1186
17:00	1761	1149	1216	1225	1147	1183	1184
17:15	1763	1142	1196	1284	1227	1203	1210
17:30	1570	1056	1156	1190	1196	1150	1150
17:45	1389	910	929	1155	1110	1074	1036
Peak Hour Vol	6977	4480	4840	4898	4754	4767	4730
Total Peak Vol	19457	12453	13710	14120	14113	13888	13657

Unlike I-70 EB in the AM, many drivers consistently avoided I-70 WB in the PM peak period. Values throughout the week were similar day-to-day with little shift in the peak hour.



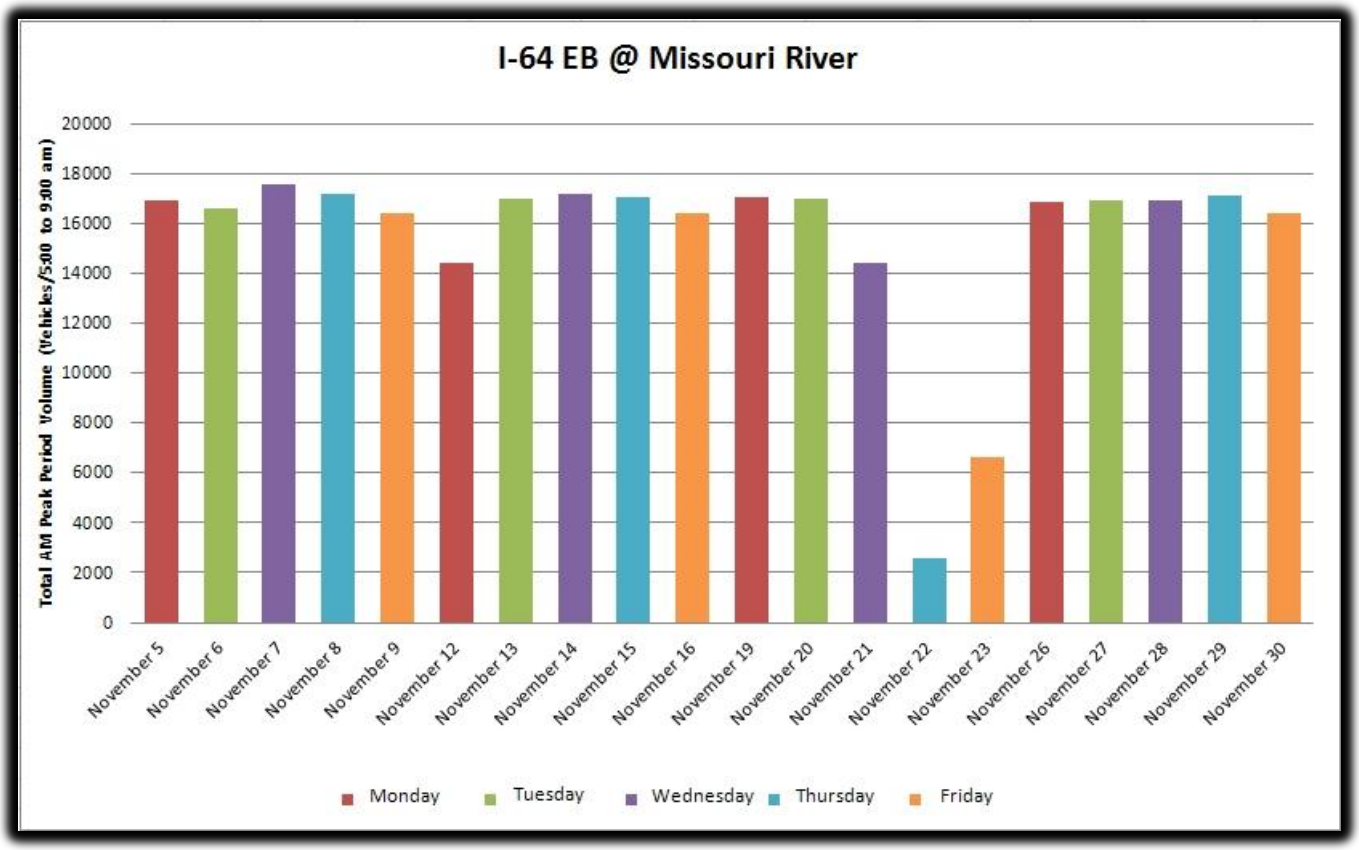
MO 364 WB @ Missouri River							
	Base Volume	Monday 11/5/2012	Tuesday 11/6/2012	Wednesday 11/7/2012	Thursday 11/8/2012	Friday 11/9/2012	Average Week Volume
15:00	494	774	676	848	887	972	831
15:15	792	991	1309	1106	1097	1196	1140
15:30	818	1029	1458	1246	1207	1340	1256
15:45	888	1295	1611	1520	1565	1560	1510
16:00	1116	1339	1666	1598	1475	1572	1530
16:15	1526	1608	2104	1842	2010	1932	1899
16:30	1350	1505	1978	1788	1889	1853	1803
16:45	1482	1680	2062	2189	2003	1998	1986
17:00	1410	1673	2003	1992	1986	1851	1901
17:15	1686	1915	2187	2367	2278	2019	2153
17:30	1426	1746	1739	1926	1984	1539	1787
17:45	1000	1329	1406	1417	1462	1213	1365
Peak Hour Vol	6004	7014	8230	8474	8251	7721	7843
Total Peak Vol	13988	16884	20199	19839	19843	19045	19162

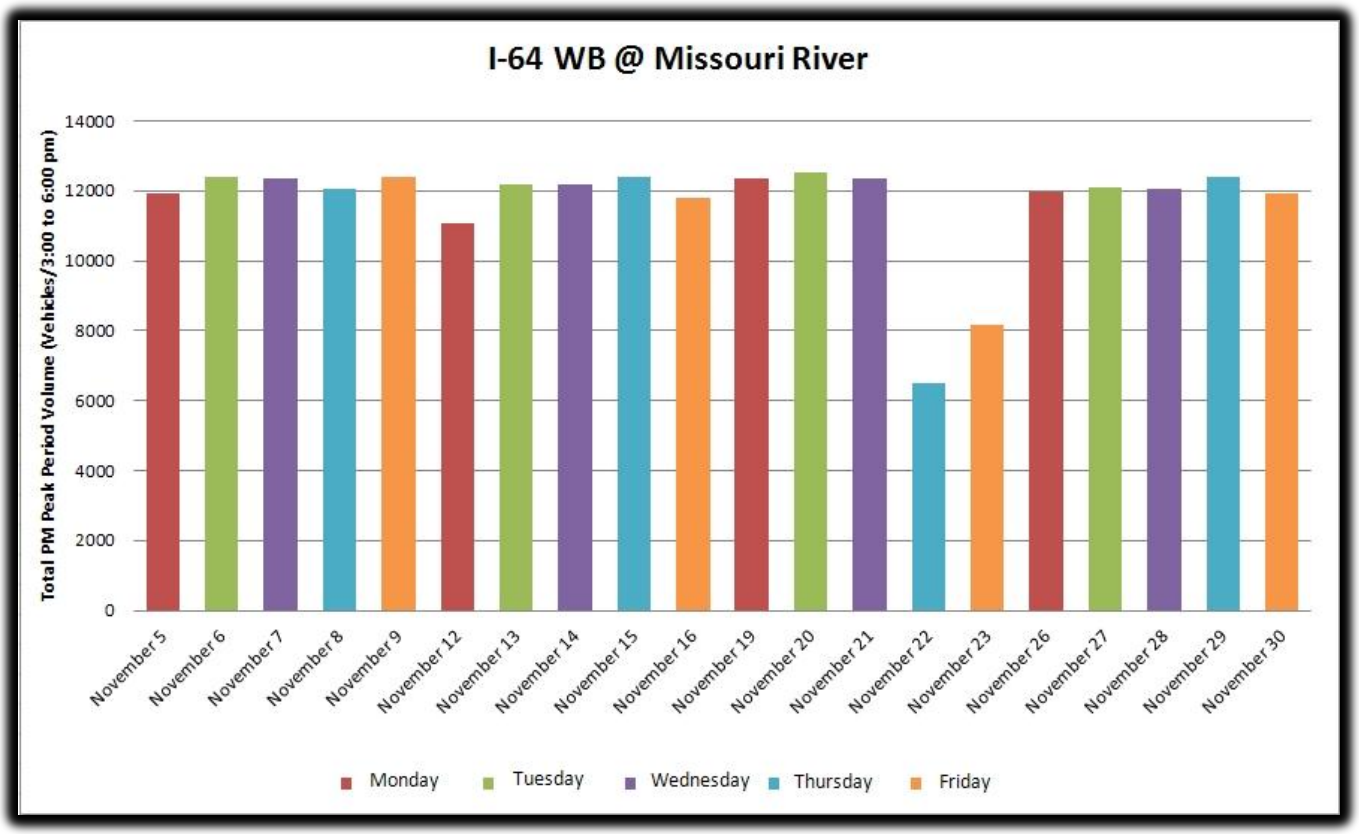
MO 364 WB had the greatest increase in traffic volumes of all river crossings during the PM peak period throughout the entire week. After Monday, November 5th, the daily peak period values were relatively equal.

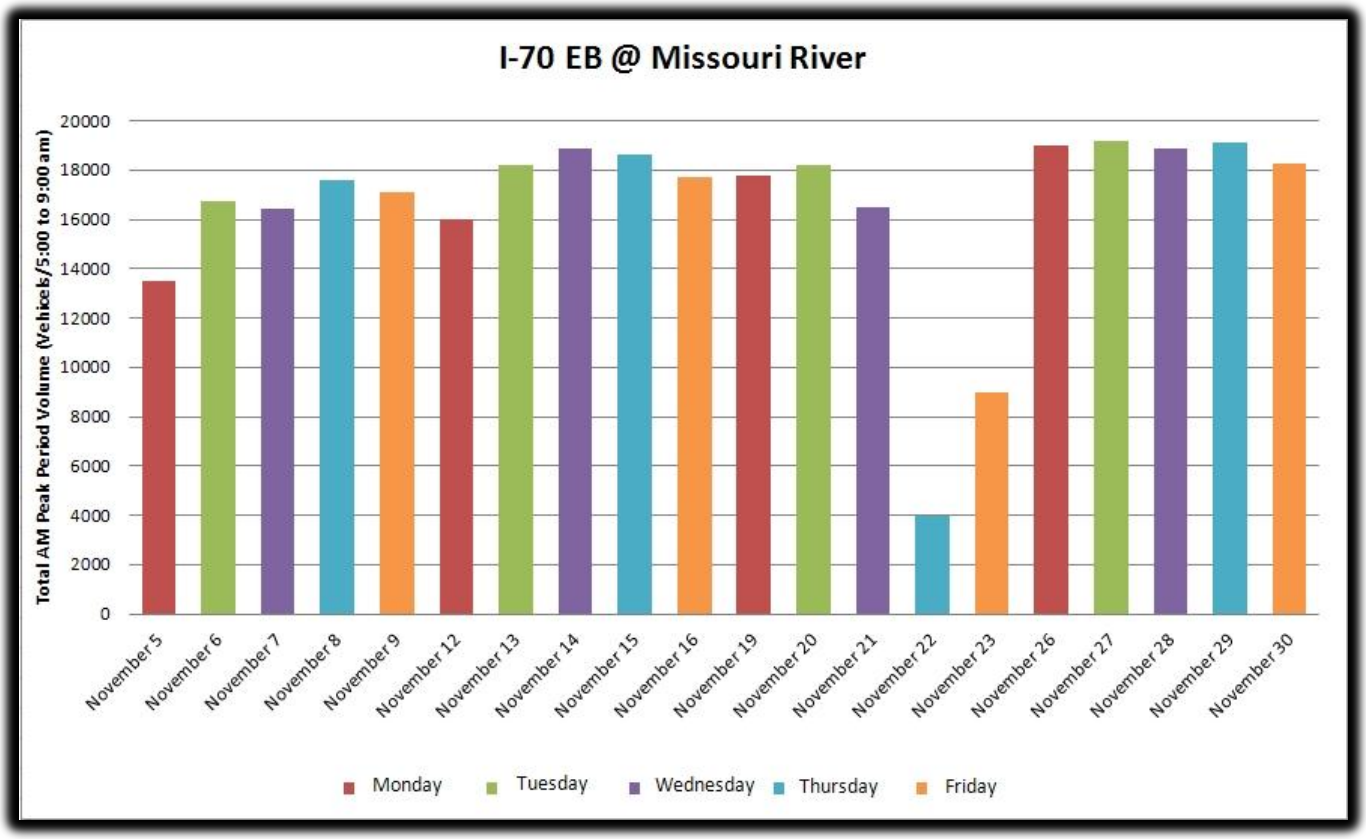


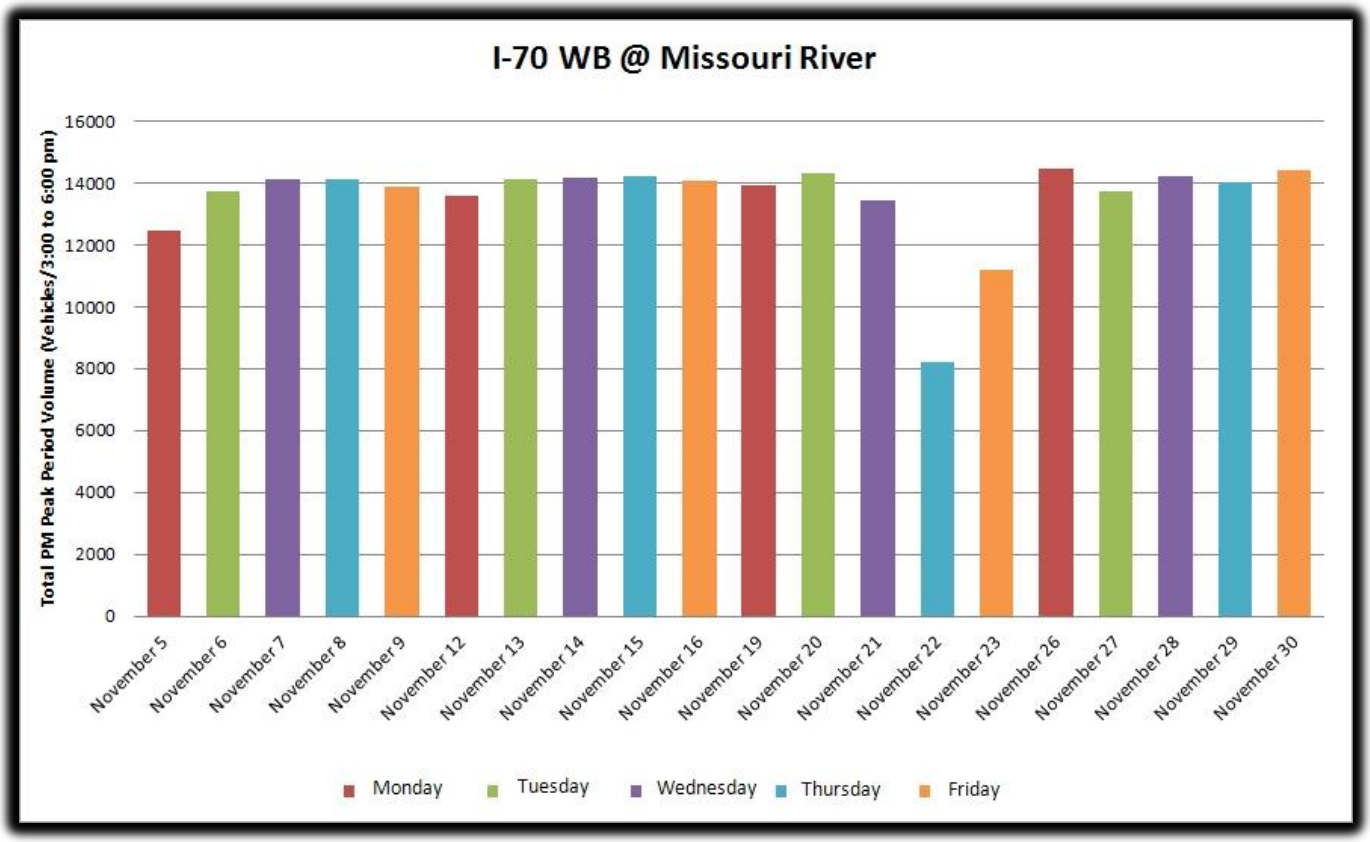
MO 370 WB @ Missouri River							
	Base Volume	Monday 11/5/2012	Tuesday 11/6/2012	Wednesday 11/7/2012	Thursday 11/8/2012	Friday 11/9/2012	Average Week Volume
15:00	722	920	872	907	872	915	897
15:15	756	849	996	878	887	942	910
15:30	859	1050	1171	991	975	1079	1053
15:45	899	1103	1147	1142	1124	1171	1137
16:00	985	1075	1117	1116	1123	1088	1104
16:15	1058	1245	1249	1187	1271	1287	1248
16:30	1080	1201	1158	1225	1302	1261	1229
16:45	1069	1274	1306	1319	1317	1252	1294
17:00	1129	1220	1244	1300	1303	1196	1253
17:15	1100	1299	1232	1396	1344	1182	1291
17:30	912	1168	976	1095	1100	1055	1079
17:45	721	874	789	924	989	817	879
Peak Hour Vol	4378	4994	4957	5240	5266	4996	5066
Total Peak Vol	11290	13278	13257	13480	13607	13245	13373

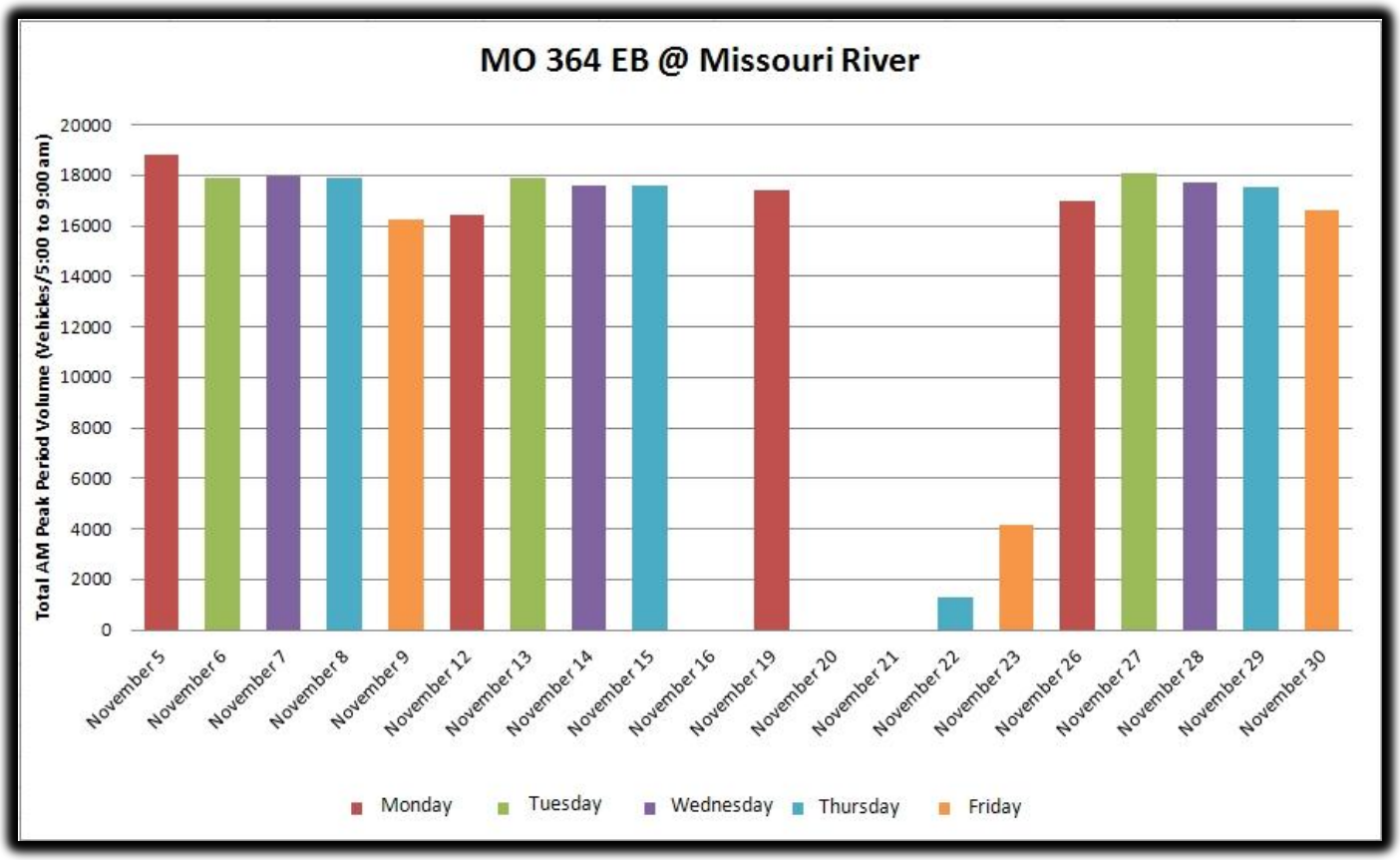
MO 370 WB had an increase in traffic volumes, but not as great of an increase as MO 364.

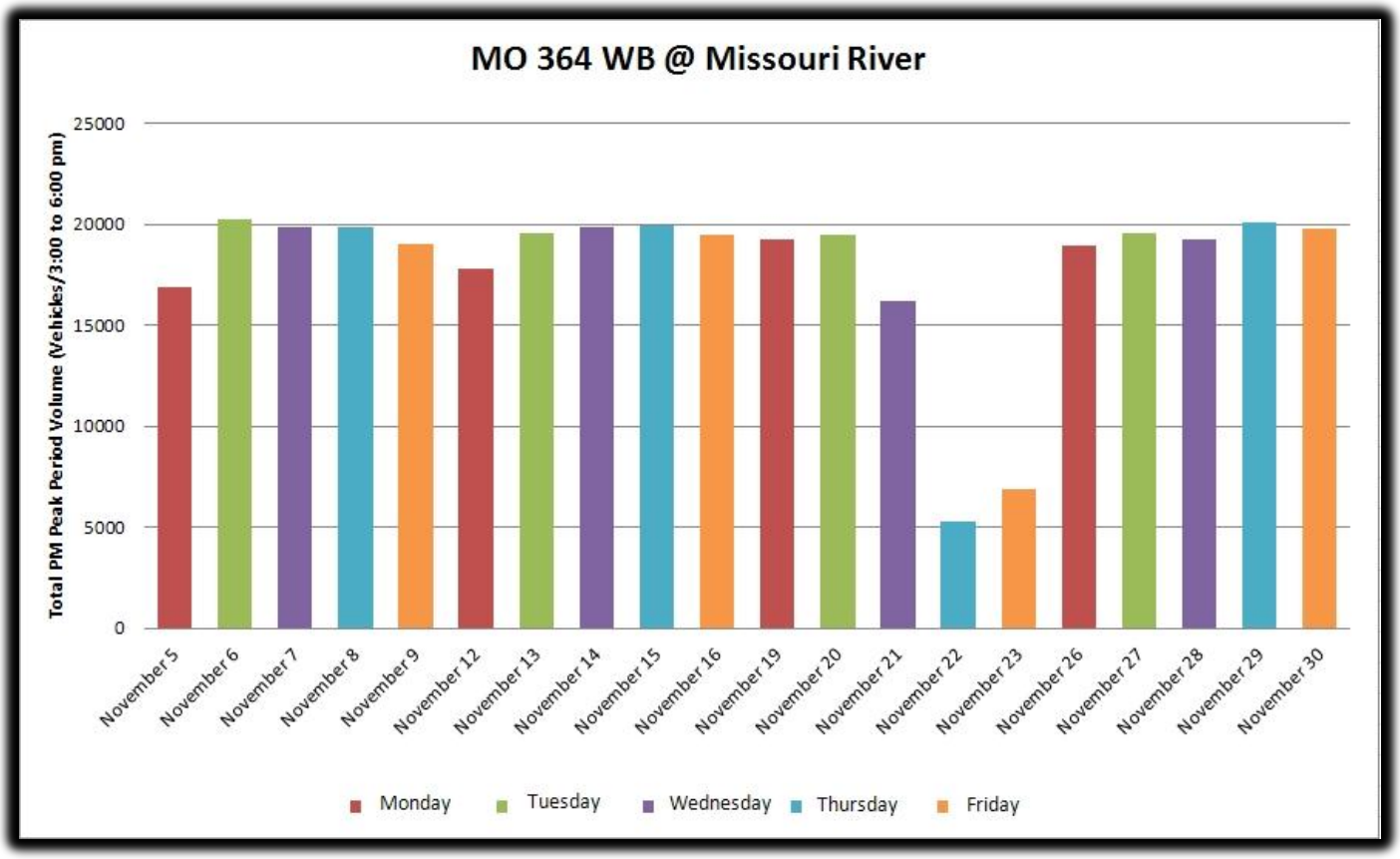

I-64 EB @ Missouri River
Total AM Peak Period Volume (Vehicles/5:00 to 9:00 am)
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
November 5
November 6
November 7
November 8
November 9
November 12
November 13
November 14
November 15
November 16
November 19
November 20
November 21
November 22
November 23
November 26
November 27
November 28
November 29
November 30
Monday
Tuesday
Wednesday
Thursday
Friday

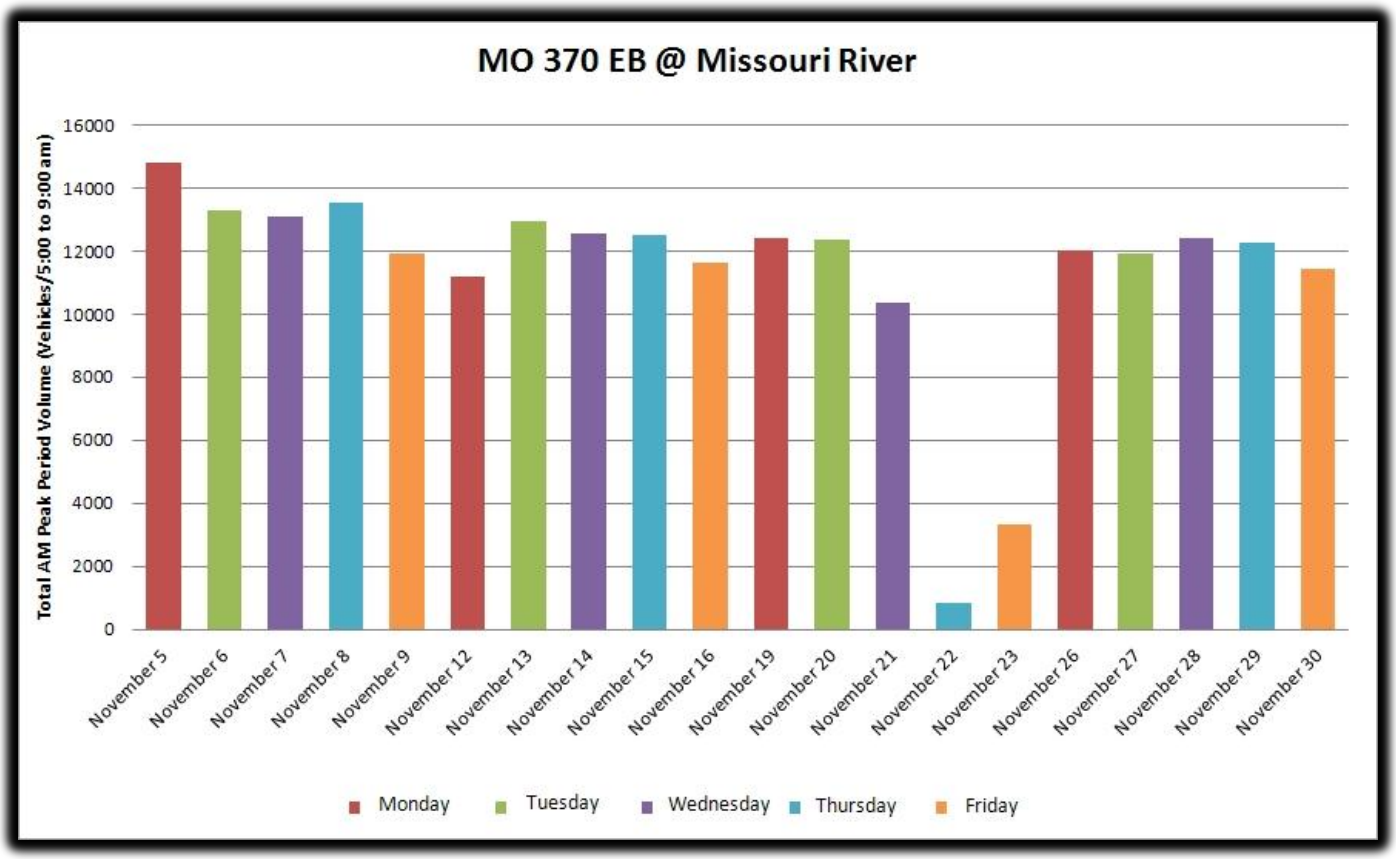

I-64 WB @ Missouri River
Total PM Peak Period Volume (Vehicles/3:00 to 6:00 pm)
14000
12000
10000
8000
6000
4000
2000
0
November 5
November 6
November 7
November 8
November 9
November 12
November 13
November 14
November 15
November 16
November 19
November 20
November 21
November 22
November 23
November 26
November 27
November 28
November 29
November 30
Monday
Tuesday
Wednesday
Thursday
Friday

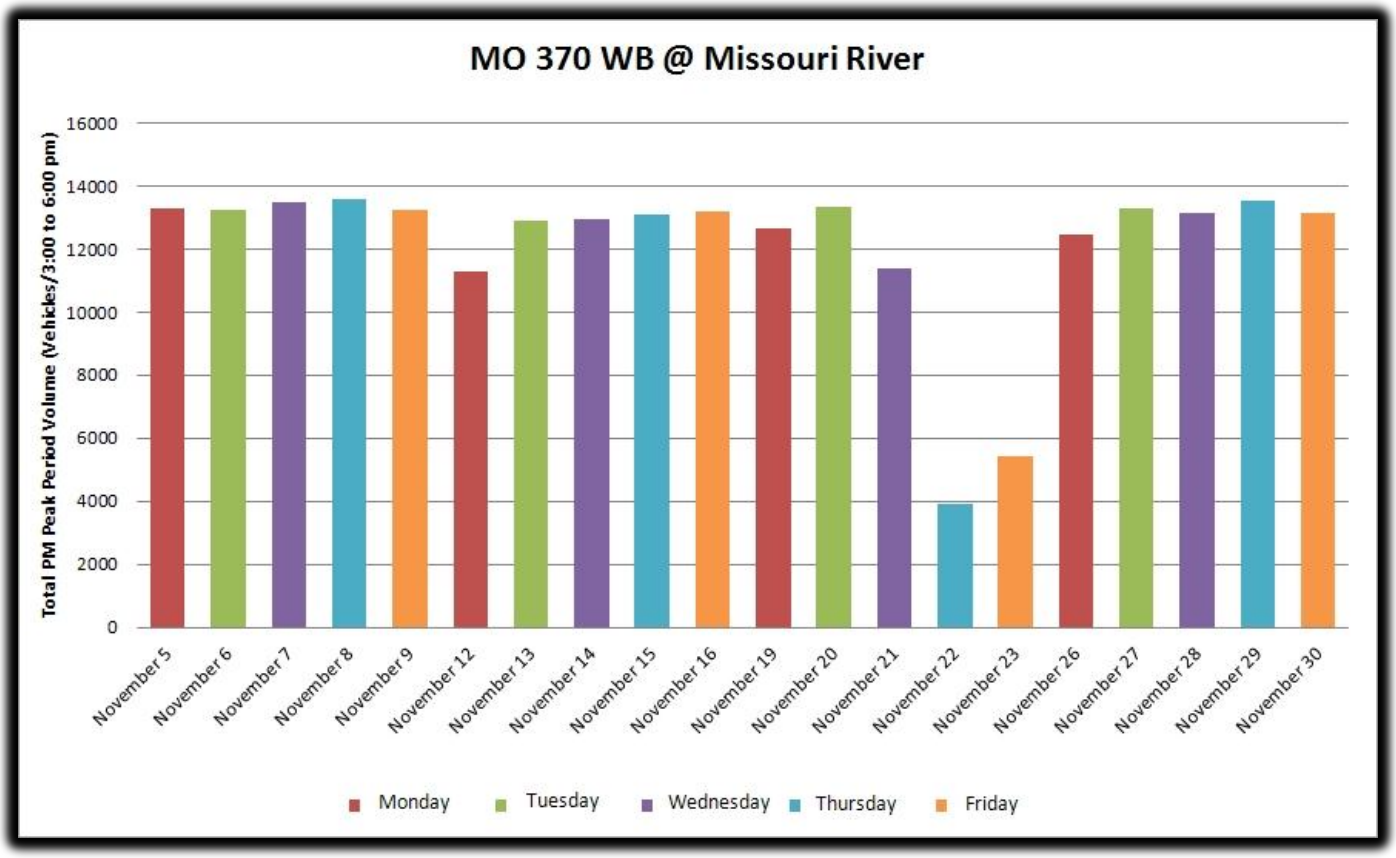

I-70 EB @ Missouri River
Total AM Peak Period Volume (Vehicles/5:00 to 9:00 am)
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
November 5
November 6
November 7
November 8
November 9
November 12
November 13
November 14
November 15
November 16
November 19
November 20
November 21
November 22
November 23
November 26
November 27
November 28
November 29
November 30
Monday
Tuesday
Wednesday
Thursday
Friday


I-70 WB @ Missouri River
Total PM Peak Period Volume (Vehicles/3:00 to 6:00 pm)
16000
14000
12000
10000
8000
6000
4000
2000
0
November 5
November 6
November 7
November 8
November 9
November 12
November 13
November 14
November 15
November 16
November 19
November 20
November 21
November 22
November 23
November 26
November 27
November 28
November 29
November 30
Monday
Tuesday
Wednesday
Thursday
Friday


MO 364 EB @ Missouri River
Total AM Peak Period Volume (Vehicles/5:00 to 9:00 am)
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
November 5
November 6
November 7
November 8
November 9
November 12
November 13
November 14
November 15
November 16
November 19
November 20
November 21
November 22
November 23
November 26
November 27
November 28
November 29
November 30
Monday
Tuesday
Wednesday
Thursday
Friday


MO 364 WB @ Missouri River
Total PM Peak Period Volume (Vehicles/3:00 to 6:00 pm)
25000
20000
15000
10000
5000
0
November 5
November 6
November 7
November 8
November 9
November 12
November 13
November 14
November 15
November 16
November 19
November 20
November 21
November 22
November 23
November 26
November 27
November 28
November 29
November 30
Monday
Tuesday
Wednesday
Thursday
Friday


MO 370 EB @ Missouri River
Total AM Peak Period Volume (Vehicles/5:00 to 9:00 am)
16000
14000
12000
10000
8000
6000
4000
2000
0
November 5
November 6
November 7
November 8
November 9
November 12
November 13
November 14
November 15
November 16
November 19
November 20
November 21
November 22
November 23
November 26
November 27
November 28
November 29
November 30
Monday
Tuesday
Wednesday
Thursday
Friday


MO 370 WB @ Missouri River
Total PM Peak Period Volume (Vehicles/3:00 to 6:00 pm)
16000
14000
12000
10000
8000
6000
4000
2000
0
November 5
November 6
November 7
November 8
November 9
November 12
November 13
November 14
November 15
November 16
November 19
November 20
November 21
November 22
November 23
November 26
November 27
November 28
November 29
November 30
Monday
Tuesday
Wednesday
Thursday
Friday

Average Rate of Travel
on Selected Signalized Routes by Calendar Year
Average Travel Time per Mile
Arterial Management

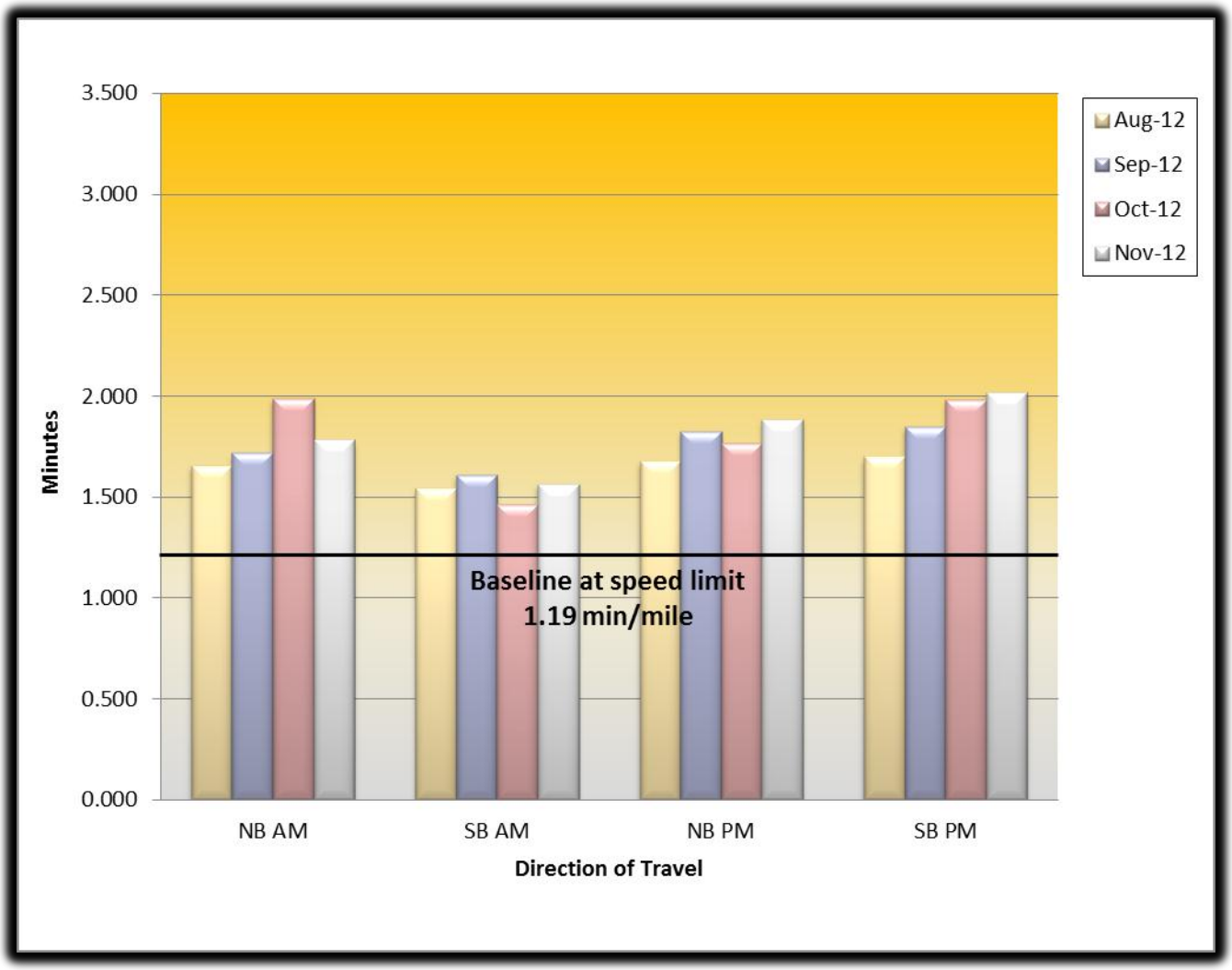
The purpose of this measure is to determine how well selected arterials across the region are operating during the peak traffic times. As improvements are made, such as signal timing, equipment upgrades, or access management improvements, this measure will show the effects of those efforts and decisions on the arterial system.

Travel times are measured on various arterial routes. For most routes, data is collected from driving each route multiple times during the A.M. and P.M. peak periods and timing how long it takes to traverse the route. For Rte. 141 and US 67, the Sensys Travel Time system is utilized to determine the travel times and allows a much more comprehensive collection of data. The travel time is compared to the speed limit and the average minutes per mile are calculated. An average minutes per mile based on a perfect run through the corridor is calculated and used as the baseline for comparison. If the actual average minutes per mile are at the baseline, traffic is moving at the speed limits without any stops.

The routes where data was collected include the following:
Route 141*, from I-55 to I-64
Route 30, from Route PP to Weber Hill Road
Route 100, from Route 340 to Maple Lane
US 50, from Union West City Limit to Denmark
US 67*, from Route 367 to I-270

* Routes where data was collected using Sensys system.

Route 141, from I-55 to US 40
St. Louis and Jefferson Counties



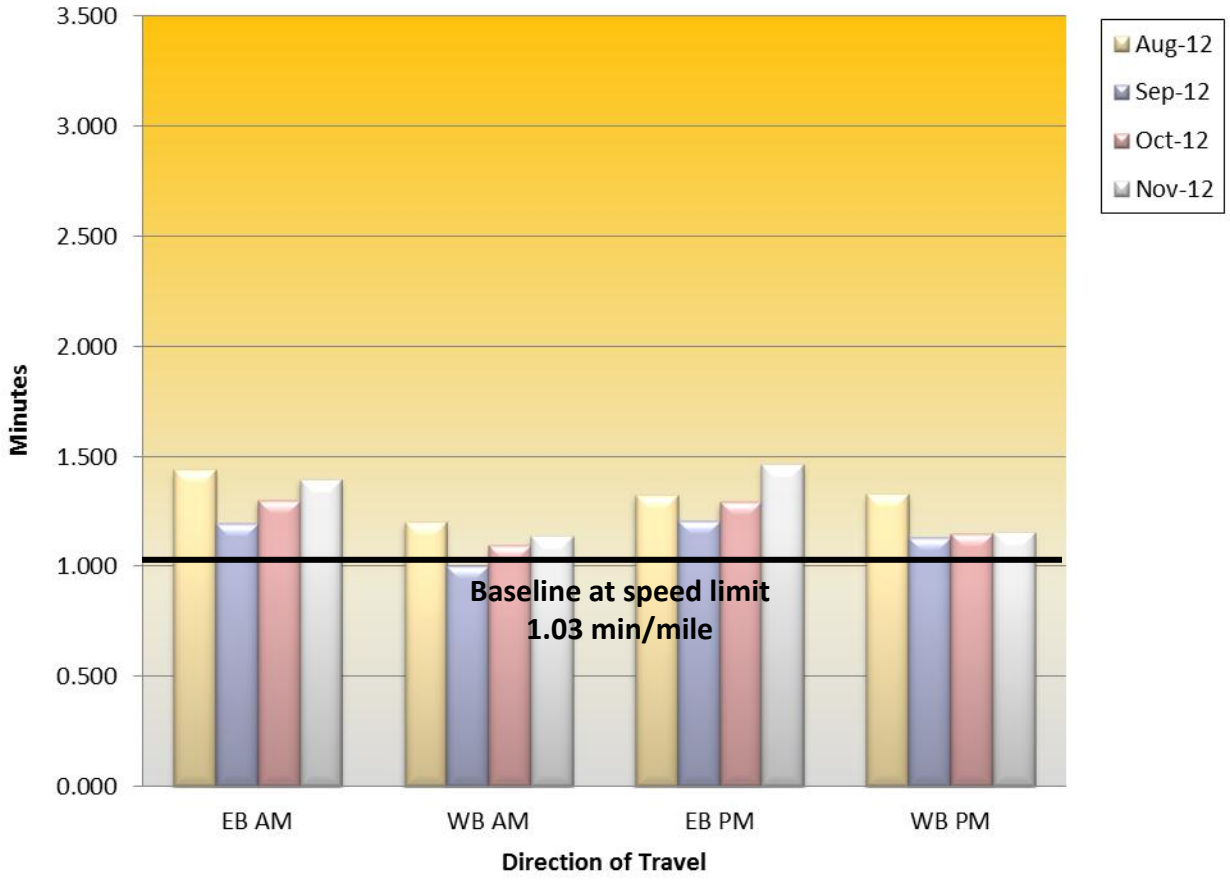
The travel times seem to be stable but higher for the past 2 months for SB PM, likely due to higher volumes. NB in the AM travel times have returned back to a level more consistent with previous months.

This corridor encompasses many systems.

Number of Signals - 41
Length of system - 18.6 miles
Speed Limit on this corridor varies from 45 mph to 55 mph
Number of Lanes – This is an urban/rural 4-6 lane expressway with signalized crossovers and several grade separated interchanges.
Weighted AADT for length of segment – 35930

This system provides travel time data based on the Sensys Travel Time system.

Route 30, from Route PP to Weber Hill Road
St. Louis and Jefferson Counties



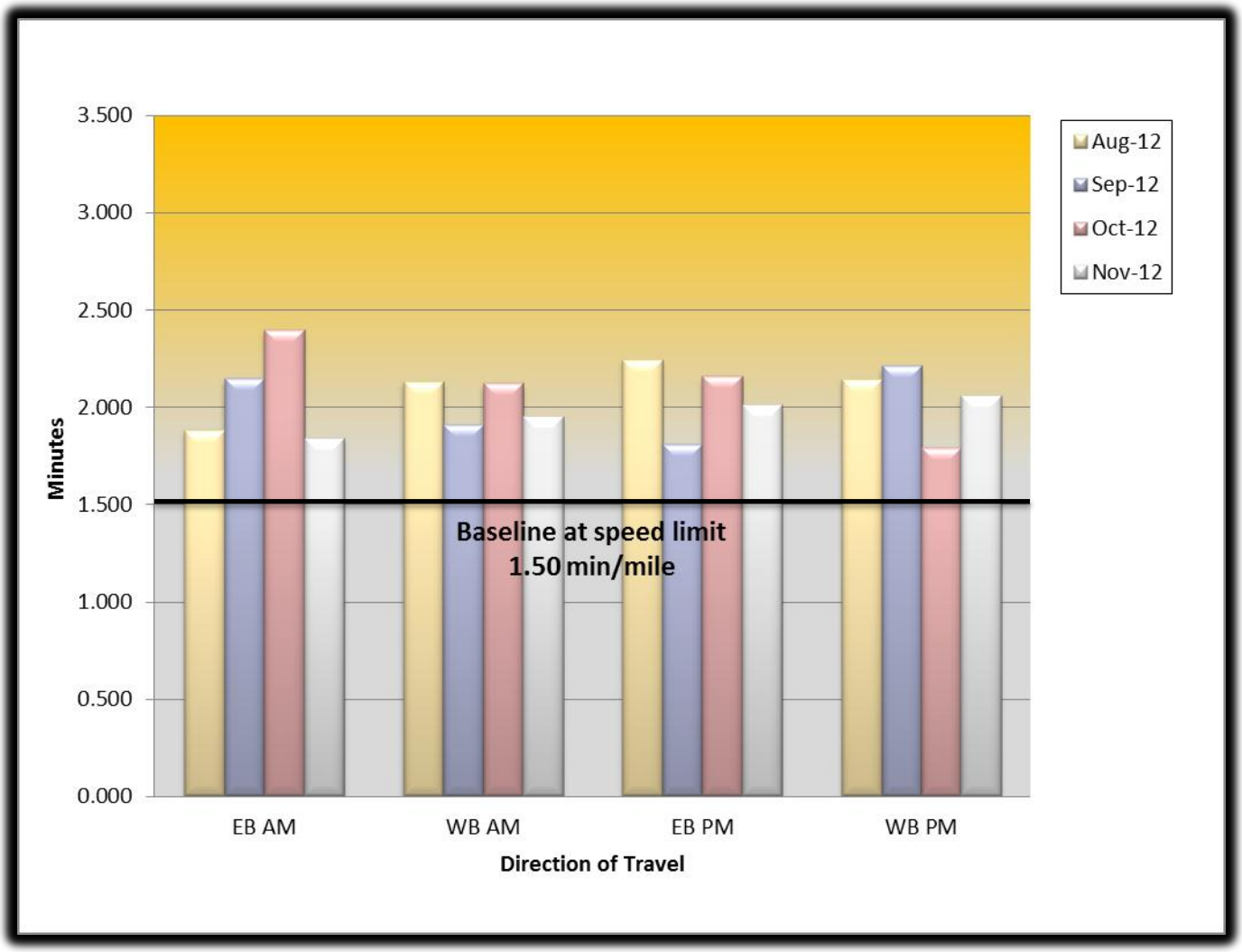
Travel times indicate an increase for EB AM and PM directions. Increased seasonal traffic is expected to be a contributing factor for the increase. Construction is now complete with continuous green indications at Dillon and Delores.

This system was optimized in 2009 and is scheduled again in 2013.

Number of Signals - 11
Length of system - 9.2 miles
Speed Limit varies from 50 mph and 60 mph
Number of Lanes - this is a rural four lane expressway with signalized crossovers
Weighted AADT for length of segment – 38150

A portion of this system is currently under construction to install a Sensys Travel Time system (Weber Hill to Rte.141 ~ 3mi)

Route 100, from Route 340 to Maple Lane
St. Louis County

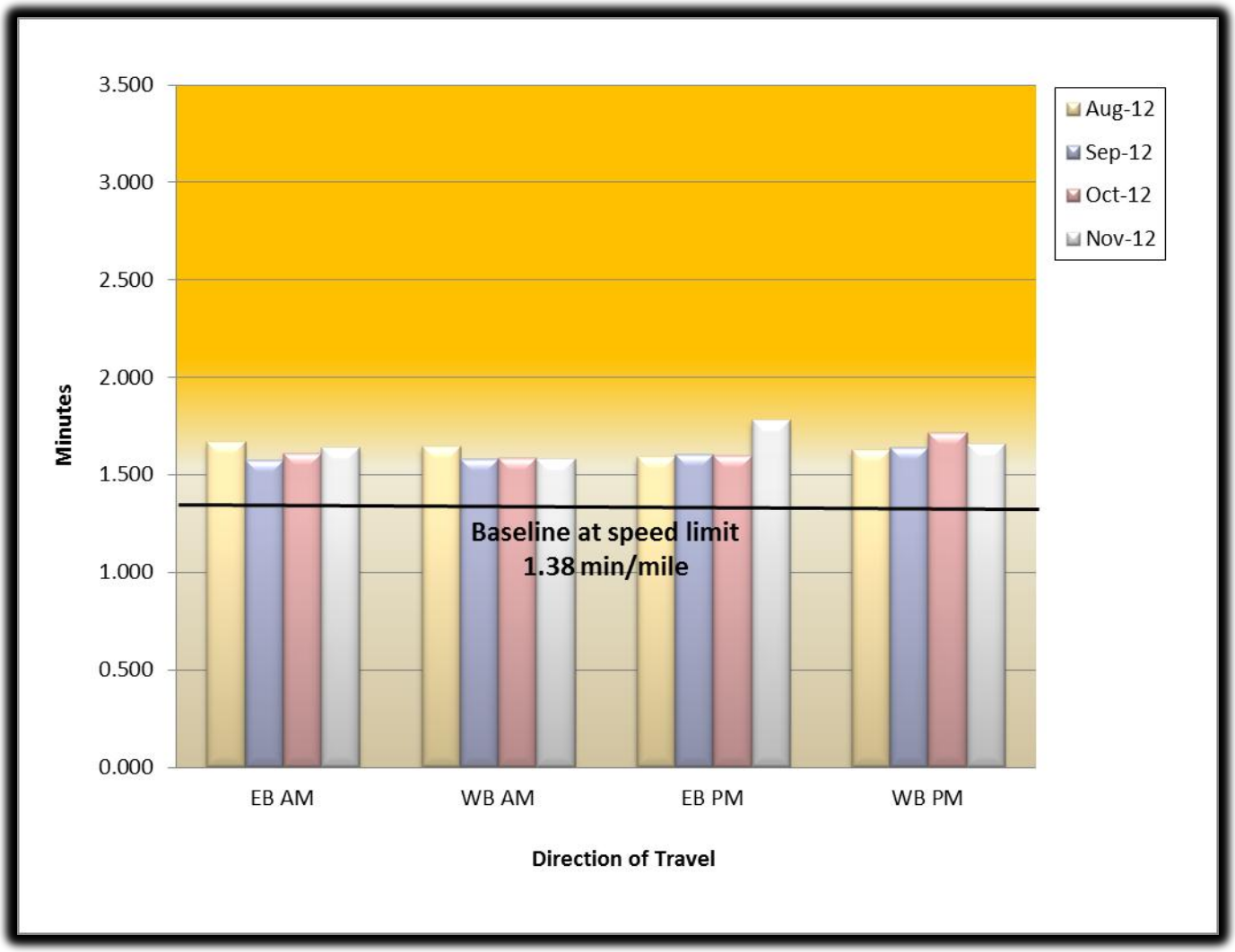


Travel times continue to fluctuate for this corridor due to varying circumstances. Detector failures, driver behavior changes and emergency vehicle preemption are all contributing factors along this corridor.

The corridor is in its final optimized configuration upon completion of the plans in May. We are awaiting the final report.

Number of Signals - 8
Length of system - 4.2 miles
Speed Limit is 40 mph
Number of Lanes - this is a five lane section with a two way left turn lane.
Weighted AADT for length of segment - 39500
AM peak flow is eastbound. PM peak flow is westbound.
This system is currently under construction to install a Sensys Travel Time system.

US 50, from Union West City Limit to Denmark
Franklin County



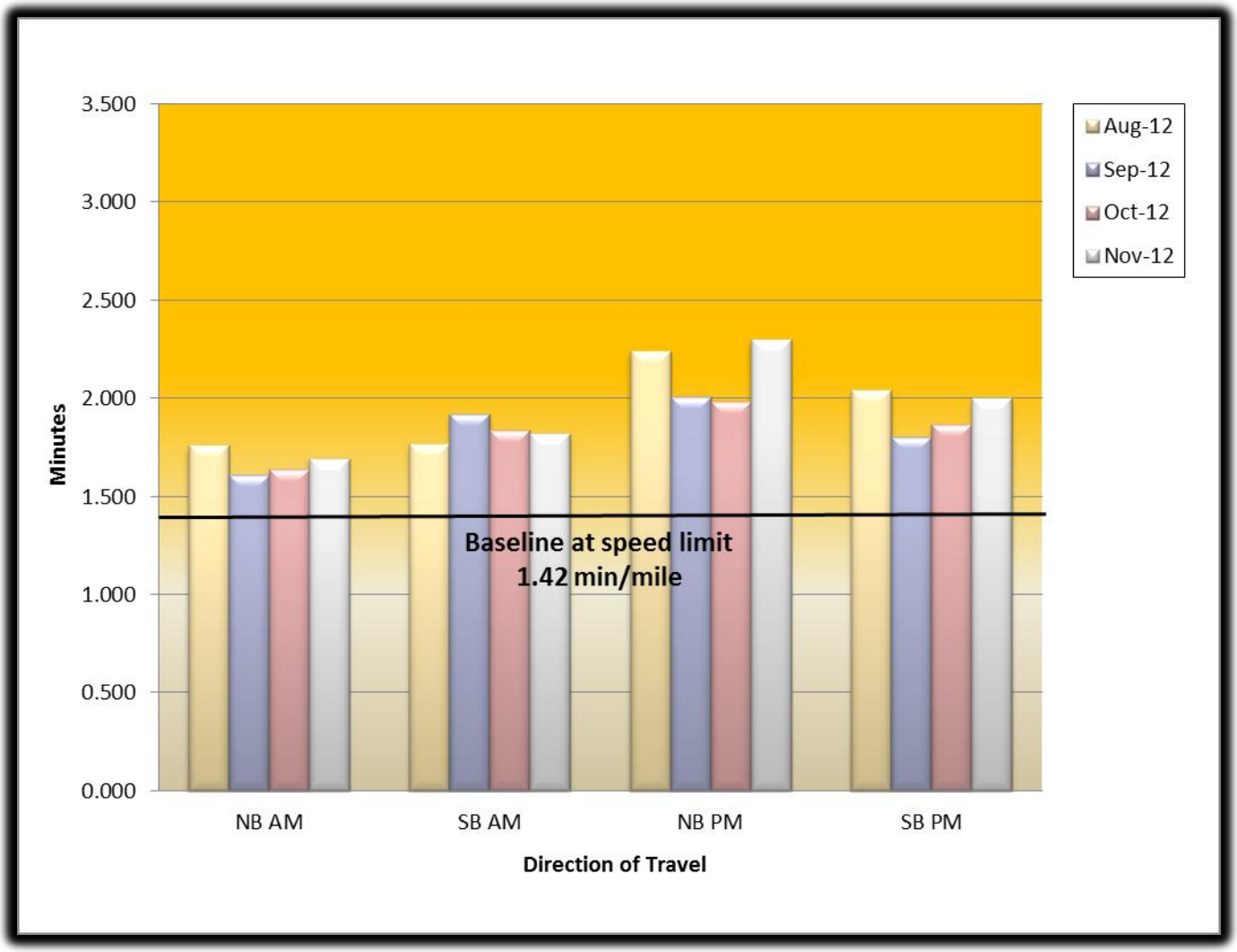
Travel times continue to be stable with the exception of EB PM this month. No known reason for the increase. We will monitor for development of trends and indicators of a probable cause.

This system had signal optimization timings implemented in early July 2011. Additional reviews on corridor progression are planned for the future.

Number of Signals - 6
Length of system - 6.3 miles
Speed Limit varies between 40 mph and 50 mph
Number of Lanes - this was just recently upgraded to a five lane section.
Weighted AADT for length of segment - 16850
AM peak flow is eastbound. PM peak flow is westbound.

No current plans to install Sensys Travel Time system.

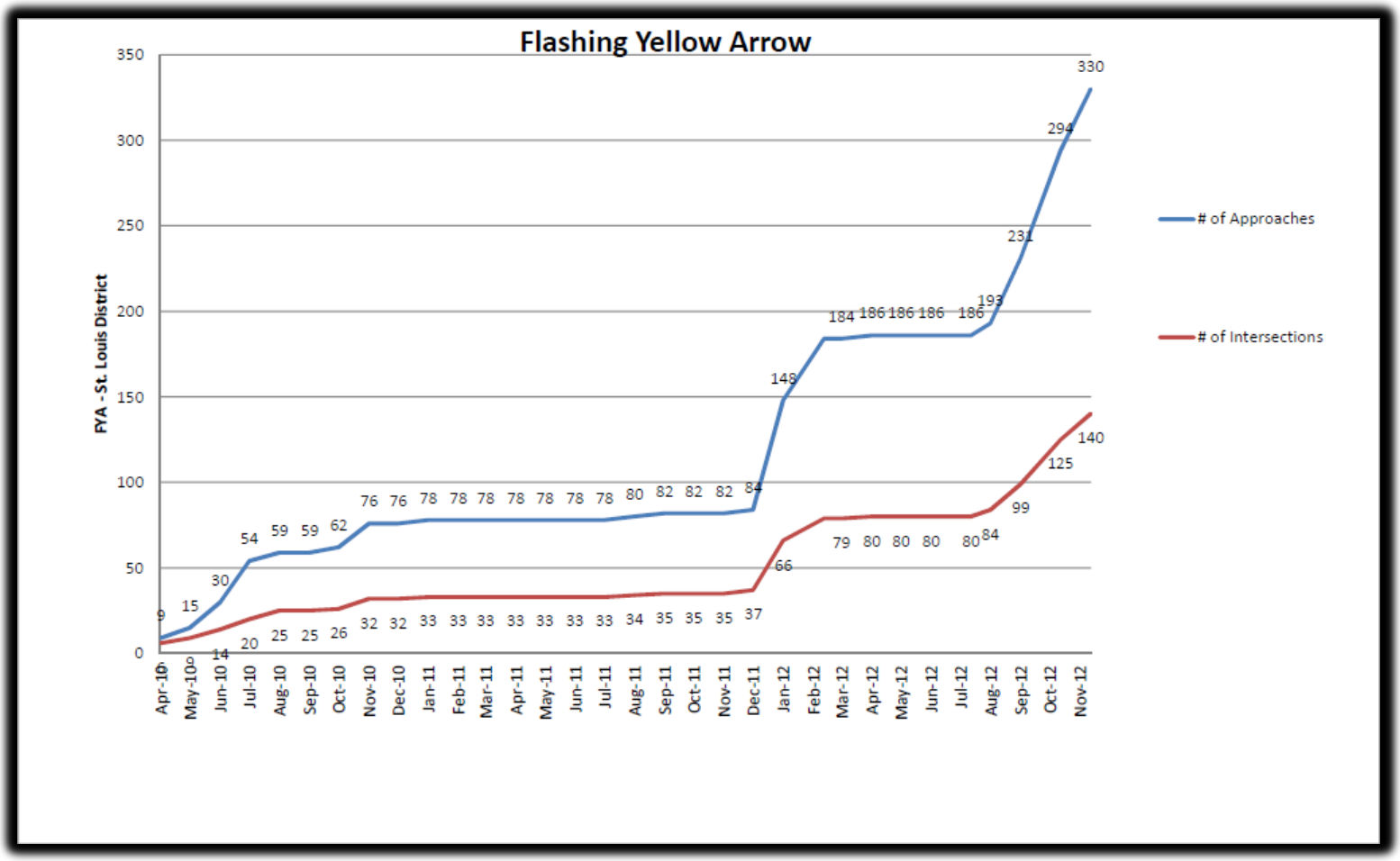
US 67, from Route 367 to I-270
St. Louis County



AM travel times are relatively consistent with last month with minimal increase or decrease. The PM travel times show an increase over last month in both directions. Mild weather and increased seasonal travel are suspected to be the cause as travel times increased as the month progressed.

Optimization on this system was recently completed and we are awaiting the response on areas of concern.

Number of Signals - 19
Length of system - 8.3 miles
Speed Limit varies between 40 mph and 45 mph
Number of Lanes - this is a five lane section with a two way left turn lane.
Weighted AADT for length of segment – 25450
Since June 2011, this system has been providing travel time data based on the Sensys Travel Time system.



Flashing Yellow Arrow signals are currently at 330 approaches in November, an increase of 36 from October. This increases the number of intersections containing Flashing Yellow Arrows to 140 in November, a gain of 15 from October. Increases were made with installations on MO 21 (St. Louis County) and Route K (St. Charles County) in November. This completes the work planned and funded under this Flashing Yellow Arrow Project.

Work Zones

Whenever additional travel time is reported, this additional time shall be evaluated using this chart and adequate mitigation measures should begin within the parameters of this chart. TMC and field personnel are partners in the mitigation of traffic and notification of additional travel times should trigger the appropriate response from both parties.

Chart is designed to be an additional travel time reference to establish parameters for gauging the travel impact through work zones and to provide guidance for taking mitigation actions. Travel times can be collected or reported via Blue Toad technology, field personnel, call reports, ITS, TMC cameras, etc.

Major and Moderate impacts trigger an IAR (Immediate Action Required) event. IAR means work zone user and TMC partner together to take immediate actions to reduce or eliminate distress. During an IAR event mitigation procedures can range from increased driver notification up to and including removal of work zone. Additional mitigation procedures may require involvement of administration through use of the work zone resolution ladder.

Level of Impact	Additional Travel Time Expected	Mitigation Actions
Major (Red) **IAR Event** SEVERE DISTRESS PRESENT **Return of roadway to free flow traffic is Priority #1**	15 minutes or above TMC and field personnel take all steps possible up to and including removal of lane closure to achieve free flow threshold	**Immediate Action Required** Supervisory mitigation assistance is required using the St. Louis District Work Zone Resolution Ladder as a tool to restore free flow traffic threshold
Moderate (Yellow) **IAR Event** CAUTIONARY STAGE: **Action required by Field/ TMC to prevent escalation to a major event**	10 – 14 minutes TMC increases driver messaging. Field begins efforts to restore free flow traffic	TMC and field shall reach a consensus on mitigation success within 15 minutes or less. If a consensus cannot be reached, mitigation should be scaled upwards in accordance with the St. Louis District Work Zone Resolution Ladder

Incident Levels

Major Impact Traffic Incident – Road closure > 2 hours 
Major traffic incidents are typically traffic incidents involving hazardous materials, fatal traffic crashes involving numerous vehicles, and other natural or man-made disasters. These traffic incidents typically involve closing all or part of a roadway facility for a period exceeding 2 hours.

Moderate Impact Traffic Incident – Blocked travel lanes/closure 30 min – 2 hours
Moderate traffic impact incidents typically affect travel lanes for a time period of 30 minutes to 2 hours, and usually require traffic control on the scene to divert road users past the blockage. Full roadway closures might be needed for short periods during traffic incident clearance to allow traffic incident responders to accomplish their tasks.

Minor Impact Traffic Incident – Lane closures < 30 minutes
Minor traffic incidents are typically disabled vehicles and minor crashes that result in lane closures of less than 30 minutes. On-scene responders are typically law enforcement and towing companies, and occasionally highway agency service patrol vehicles.

Definitions

511 – Gateway Guide's phone line for automated call-in travel information in the St. Louis Metro Area

511 Floodgate Message – Road closure message sent from the TMC that is read at the beginning of a 511 call and posted to the banner on the website

ACTRA – Traffic signal management software program

Alert – Email message sent regarding an incident or event on the roadway

Arterial – Missouri State Highway Numbered Routes, not fully access controlled

Arterial Device – ITS equipment located along MoDOT arterials

Average Minutes per Mile – Number of minutes for a vehicle to travel one mile of roadway averaged over a section of roadway

BlueTOAD - a (Bluetooth Travel-time Origination and Destination) traffic monitoring system to collect high quality high density travel times by sampling a portion of actual travel times

CFI – Continuous Flow Intersection, at grade intersection configured to move turning vehicles conflicting with through movements out of the main intersection.

DMS - Dynamic Message Signs

Defined Sensor – A single sensor with an individual ID focused on a particular roadway; multiple defined sensors may be located at one physical sensor location

Driver messaging – Messages placed on DMS boards to alert drivers of incidents ahead of their direction of travel

EOC – Emergency Operations Center operated by MoDOT at the central office in Jefferson City

ER – MoDOT's Emergency Response units that provide emergency assistance during nights and weekends typically not covered by Motorist Assist units

Freeway Device – ITS device located along a MoDOT freeway, such as interstates and other fully access controlled highways

Gatewayguide.com – Gateway Guide's website for local St. Louis area traffic information

GuidePost – Area of report highlighting important mobility topics for the month

IDOT - Illinois Department of Transportation

KCScout – Gateway Guide's counterpart for the greater Kansas City Metropolitan area, a collaboration involving both MoDOT and the Kansas DOT

Mobility – Ease of movement over roadway, through system, and or work zone

MMU – Conflict monitor hardware installed at a signal system

MRB – Mississippi River Bridge under construction north of downtown St. Louis

Observed Work zone – Work zone tracked by traffic cameras at the TMC

Peak Average – Daily speed sensor readings over an entire weekday rush commute period averaged for an entire month

PSB - Poplar Street Bridge

Regional Mobility Overview – Map depicting congestion areas based on speed index ratings derived from speed sensor readings

Speed Index – a ratio of the speed at which vehicles travel during a period to the speed at free-flow conditions

Stats to Watch – Area of report highlighting interesting trends for the report month, or data to be closely followed

STLtraffic – Email group consisting of Gateway Guide personnel and Gateway Guide's media partners, messages sent to the group are also posted on Twitter

TMC – Traffic Management Center (also referred to as Gateway Guide)

TMC Alert – Email alert sent to an internal group of Gateway Guide personnel

VDS – Video Detection System, signal equipment used to detect vehicles at an intersection

Visibility- Concerning placement of traffic signs, signals, devices, barricades and warning lights for safety within work zone or construction area to help motorist and workers move within a work zone safely; Clearly visible and legible, distinguishable to approaching traffic during day and night, aligned with road user's line of vision, and positioned as to not obstruct other applicable traffic control devices. Must meet MUTCD standards for condition and must be covered, turned or properly stowed when not in use.

Zoning In – section of report highlighting important construction topics for the report month

I-70 Mile Markers

ST. CHARLES COUNTY		I-70 DISTRICT 6 EASTBOUND	I-70 DISTRICT 6 WESTBOUND		ST. CHARLES COUNTY
5TH ST SOUTH (ST. CHARLES)	229A			229A	5TH ST SOUTH (ST. CHARLES)
5TH ST NORTH (ST. CHARLES)	229B			229B	5TH ST NORTH (ST. CHARLES)
ST. LOUIS COUNTY					**ST. LOUIS COUNTY**
BLANCHETTE BRIDGE	230			230	BLANCHETTE BRIDGE
EARTH CITY EXPRESSWAY SOUTH	231A			231A	EARTH CITY EXPRESSWAY SOUTH
EARTH CITY EXPRESSWAY NORTH	231B			231B	EARTH CITY EXPRESSWAY NORTH
I-270	232			232	I-270
MCKELVEY RD OVERPASS (BRIDGETON)	233			233	MCKELVEY RD OVERPASS (BRIDGETON)
RTE 180/ST. CHARLES ROCK RD (BRIDGETON	234			234	RTE 180/ST. CHARLES ROCK RD (BRIDGETON
US 67 SOUTH (BRIDGETON)	235A			235A	US 67 SOUTH (BRIDGETON)
US 67 NORTH (BRIDGETON)	235B			235B	US 67 NORTH (BRIDGETON)
CYPRESS RD (BRIDGETON)	235C			235C	CYPRESS RD (BRIDGETON)
AIRFLIGHT (ST. ANN)	236			236	AIRFLIGHT (ST. ANN)
MCDONNELL OVERPASS (BERKELEY)	237			237	MCDONNELL OVERPASS (BERKELEY)
LAMBERT AIRPORT (BERKELEY)	238A			238A	LAMBERT AIRPORT (BERKELEY)
I-170 NORTH (BERKELEY)	238B			238B	I-170 NORTH (BERKELEY)
I-170 SOUTH (BERKELEY)	238C			238C	I-170 SOUTH (BERKELEY)
NORTH HANLEY (BERKELEY)	239			239	NORTH HANLEY (BERKELEY)
RTE N/FLORISSANT RD (COOL VALLEY)	240A			240A	RTE N/FLORISSANT RD (COOL VALLEY)
BERMUDA DR (NORMANDY)	240B			240B	BERMUDA DR (NORMANDY)
RTE U/LUCAS AND HUNT RD	241B			241B	RTE U/LUCAS AND HUNT RD
JENNINGS STATION RD (PINE LAWN)	242C			242C	JENNINGS STATION RD (PINE LAWN)
ST. LOUIS CITY					**ST. LOUIS CITY**
GOODFELLOW (ST. LOUIS)	243A			243A	GOODFELLOW (ST. LOUIS)
RIVERVIEW/BIRCHER (ST. LOUIS)	243B			243B	RIVERVIEW/BIRCHER (ST. LOUIS)
UNION (ST. LOUIS)	244A			244A	UNION (ST. LOUIS)
KINGSHIGHWAY (ST. LOUIS)	244B			244B	KINGSHIGHWAY (ST. LOUIS)
SHREVE (ST. LOUIS)	245A			245A	SHREVE (ST. LOUIS)
WEST FLORISSANT AVE (ST LOUIS)	245B			245B	WEST FLORISSANT AVE (ST LOUIS)
NORTH BROADWAY (ST. LOUIS)	246A			246A	NORTH BROADWAY (ST. LOUIS)
ADELAIDE (ST LOUIS)	246B			246B	ADELAIDE (ST LOUIS)
GRAND (ST. LOUIS)	247			247	GRAND (ST. LOUIS)
SALISBURY (ST LOUIS)	248A			248A	SALISBURY (ST LOUIS)
BRANCH (ST LOUIS)	248B			248B	BRANCH (ST LOUIS)
MADISON (ST LOUIS)	249A			249A	MADISON (ST LOUIS)
PINE ST OVERPASS (ST LOUIS)	250			250	PINE ST OVERPASS (ST LOUIS)
CHESTNUT ST OVERPASS (ST LOUIS)	250			250	CHESTNUT ST OVERPASS (ST LOUIS)
MARKET ST OVERPASS (ST. LOUIS)	250			250	MARKET ST OVERPASS (ST. LOUIS)
WALNUT ST OVERPASS (ST LOUIS)	250			250	WALNUT ST OVERPASS (ST LOUIS)

I-70 St. Charles County Mile Markers

		I-70 DISTRICT 6 EASTBOUND	I-70 DISTRICT 6 WESTBOUND		
RTE A (WENTZVILLE)	212			212	RTE A (WENTZVILLE)
LAKE ST. LOUIS BLVD (LAKE ST. LOUIS)	214			214	LAKE ST. LOUIS BLVD (LAKE ST. LOUIS)
BRYAN RD (O'FALLON)	216			216	BRYAN RD (O'FALLON)
RTE K/RTE M (O'FALLON)	217			217	RTE K/RTE M (O'FALLON)
T.R. HUGHES BLVD (O'FALLON)	218			218	T.R. HUGHES BLVD (O'FALLON)
RTE 79 (ST. PETERS/O'FALLON)	220			220	RTE 79 (ST. PETERS/O'FALLON)
RTE C/MID RIVERS MALL DR (ST. PETERS)	222			222	RTE C/MID RIVERS MALL DR (ST. PETERS)
SPENCER RD OVERPASS (ST. PETERS)	223			223	SPENCER RD OVERPASS (ST. PETERS)
RTE 370 (ST. PETERS)	224			224	RTE 370 (ST. PETERS)
CAVE SPRINGS (ST. CHARLES)	225			225	CAVE SPRINGS (ST. CHARLES)
ZUMBEHL RD (ST. CHARLES)	227			227	ZUMBEHL RD (ST. CHARLES)
HAWK'S NEST OVERPASS (ST. CHARLES)	227			227	HAWK'S NEST OVERPASS (ST. CHARLES)
RTE 94 (ST. CHARLES)	228			228	RTE 94 (ST. CHARLES)
5TH ST SOUTH (ST. CHARLES)	229A			229A	5TH ST SOUTH (ST. CHARLES)
5TH ST NORTH (ST. CHARLES)	229B			229B	5TH ST NORTH (ST. CHARLES)

I-270 Mile Markers

3	KOCH RD	I-255 WESTBOUND	KOCH RD	3
2	SR 231 (TELEGRAPH RD)		SR 231 (TELEGRAPH RD)	2
1C	US61-67		US61-67	1B
1B	**I-55 NORTH**		**I-55 NORTH**	1B
1	**I-55 SOUTH**		**I-55 SOUTH**	1A
2	SR 21 (TESSON FERRY RD.)		SR 21 (TESSON FERRY RD.)	2
3	SR 30 (GRAVOIS RD.)		SR 30 (GRAVOIS RD.)	3
5	I-44 EAST/SR 366 (WATSON RD.)		**I-44 EAST**	5
5	**I-44 WEST**		**I-44 WEST**	5
			BIG BEND RD.	7
8	DOUGHERTY FERRY RD.		DOUGHERTY FERRY RD.	8
10	SR 100 (MANCHESTER RD.)		SR 100 (MANCHESTER RD.)	10
12	I-64 EAST/WEST/US 40-61 NORTH/SOUTH		I-64 EAST/WEST/US 40-61 NORTH/SOUTH	12 A/B
13	SR AB (LADUE RD)		SR AB (LADUE RD)	13
14	SR 340 (OLIVE BLVD)		SR 340 (OLIVE BLVD)	14
16	SR D (PAGE AVE.) EAST		SR D (PAGE AVE.) EAST	16A
16	SR 364 WEST		SR 364 WEST	16B
17	DORSETT RD		DORSETT RD	17
20	**I-70 WEST/EAST**		**I-70 WEST**	20B
			I-70 EAST	20A
20C	SR 180 (ST. CHARLES ROCK RD)		SR 180 (ST. CHARLES ROCK RD)	20C
22	MISSOURI BOTTOM RD/370 WEST		SR 370 WEST	22D
23	MCDONNELL BLVD		MCDONNELL BLVD	23
25A	US 67 SOUTH		US 67 NORTH	25A
25B	US 67 NORTH		US 67 SOUTH	25B
26	HANLEY/GRAHAM RD.		**I-170 SOUTH (EXIT LEFT)**	26A
26	**I-170 SOUTH**		HANLEY/GRAHAM	26B
27	NEW FLORISSANT RD		NEW FLORISSANT RD	27
28	WASHINGTON/ELIZABETH RD.		ELIZABETH/WASHINGTON	28
29	WEST FLORISSANT RD		WEST FLORISSANT RD	29
30	SR AC HALLS FERRY RD		SR AC NEW HALLS FERRY RD	30
			NEW HALLS FERRY RD.	30A
31A	**SR 367 SOUTH**		**SR 367 SOUTH**	31A
31B	**SR 367 NORTH**		**SR 367 NORTH**	31B
32	BELLEFONTAINE RD		BELLEFONTAINE RD	32
33	LILAC AVE.		LILAC AVE.	33
34	RIVERVIEW DR.		RIVERVIEW DR.	34

I-255 EASTBOUND

<--- I-270 DISTRICT 6 COUNTER CLOCKWISE FROM RIVERVIEW DR. TO I-55 <---

--- > I-270 DISTRICT 6 CLOCKWISE FROM I-55 TO RIVERVIEW DR. --- >

I-64 Mile Markers

I-70 WEST EXIT RIGHT/EAST EXIT LEFT	1		1A	**I-70 WEST**
			1B	**I-70 EAST**
PROSPECT RD	1C		1C	PROSPECT RD
LAKE ST. LOUIS BLVD	2		2	LAKE ST. LOUIS BLVD
SR N	4		4	MO N
SR DD/WINGHAVEN	6		6	MO DD/Winghaven
SR K/SR 94	9		9	MO K
			10	MO 94
MISSOURI RESEARCH PARK/TECHNOLOGY DR	12		11	RESEARCH PARK CRL
DANIEL BOONE BRIDGE	13		13	DANIEL BOONE BRIDGE
CHESTERFIELD AIRPORT RD	14		14	SPIRIT OF ST LOUIS BLVD
			16	LONG RD
BOONE'S CROSSING	17		17	BOONE'S CROSSING
CHESTERFIELD PKWY	19A		19A	CHESTERFIELD PKWY
SR 340 (OLIVE/CLARKSON	19B		19B	MO 340 (OLIVE/CLARKSON)
			20	CHESTERFIELD PKWY
TIMBERLAKE MANOR PKWY	21		21	TIMBERLAKE MANOR PKWY
SR 141	22		22	MO 141 (WOODS MILL RD)
MASON RD	23		23	MARYVILLE CENTRE DR
			24	MASON RD
I-270 SOUTH	25A		25A	**I-270 SOUTH**
I-270 NORTH	25B		25B	**I-270 NORTH**
SR JJ (BALLAS RD)	26		26	MO JJ (BALLAS RD)
SPOEDE RD	27		27	SPOEDE RD
US 61-67	28A		28A	US 61-67
			28B	CLAYTON RD
MCKNIGHT RD	30		30	MCKNIGHT RD
BRENTWOOD/HANLEY RD	31B		31A	**I-170 NORTH**
I-170 NORTH	31A		31B	HANLEY RD/BRENTWOOD BLVD
BELLEVUE AVE	33B			
BIG BEND	33A		33A	BIG BEND BLVD
MCCAUSLAND	33C		**ST. LOUIS CITY**	
ST. LOUIS CITY			33C	MCCAUSLAND AVE
HAMPTON AVE/OAKLAND AVE	34B		34A	CLAYTON RD/SKINKER BLVD
			34B	HAMPTON AVE
KINGSHIGHWAY	36A		36A	KINGSHIGHWAY
VANDEVENTER AVE	36C		36B	BOYLE
MARKET ST/BERNARD ST	37A			
GRAND AVE	37B			
JEFFERSON AVE	38A		38A	FOREST PARK AVE/GRAND BLVD
CHESTNUT AT 20TH ST	38B		38B	MARKET ST AT 3000 WEST
14TH ST	39B		39A	MARKET ST AT 21ST
11TH ST EXIT LEFT	39C		40A	STADIUM/9TH ST/ TUCKER BLVD
BROADWAY/7TH ST (LAST MISSOURI EXIT)	40B		40C	**I-44 WB/I-55 SB/ I-70 WB**

I-64 DISTRICT 6 EASTBOUND

I-64 DISTRICT 6 WESTBOUND

I-55 Mile Markers

JEFFERSON COUNTY				JEFFERSON COUNTY
RTE M	185		185	RTE M
MAIN ST(IMPERIAL)	186		186	MAIN ST(IMPERIAL)
RICHARDSON RD (ARNOLD)	190		190	RICHARDSON RD (ARNOLD)
RTE 141 (ARNOLD)	191		191	RTE 141 (ARNOLD)
ST. LOUIS COUNTY				**ST. LOUIS COUNTY**
MERAMEC BOTTOM RD	193		193	MERAMEC BOTTOM RD
BUTLER HILL RD	195		195	BUTLER HILL RD
I-255 EAST	196A		196A	**I-255 EAST**
I-270 NORTH	196B		196B	**I-270 NORTH**
US67/LINDBERGH	197		197	US67/LINDBERGH
REAVIS BARRACKS RD	199		199	REAVIS BARRACKS RD
UNION RD	200		200	UNION RD
BAYLESS	201A		201A	BAYLESS
WEBER RD	201B		201B	WEBER RD
ST. LOUIS CITY				**ST. LOUIS CITY**
GERMANIA (ST. LOUIS)	202B		202B	GERMANIA (ST. LOUIS)
LOUGHBOROUGH AVE (ST. LOUIS	202C		202C	LOUGHBOROUGH AVE (ST. LOUIS
BATES (ST. LOUIS)	203		203	BATES (ST. LOUIS)
BROADWAY (ST. LOUIS)	204		204	BROADWAY (ST. LOUIS)
GASCONADE (ST. LOUIS)	205		205	GASCONADE (ST. LOUIS)
ARSENAL (ST. LOUIS)	206C		206C	ARSENAL (ST. LOUIS)
SIDNEY OVERPASS	206		206	SIDNEY OVERPASS
GRAVOIS AVE OVERPASS	207		207	GRAVOIS AVE OVERPASS
I-44 WEST (ST. LOUIS)	207		207	**I-44 WEST (ST. LOUIS)**
7TH ST/PARK AVE (ST. LOUIS)	208		208	7TH ST/PARK AVE (ST. LOUIS)

I-55 DISTRICT 6 SOUTHBOUND

I-55 DISTRICT 6 NORTHBOUND

I-44 Mile Markers

FRANKLIN COUNTY				FRANKLIN COUNTY	
PACIFIC	257			257	PACIFIC
ST. LOUIS COUNTY				261	ALLENTON/SIX FLAGS
ALLENTON/SIX FLAGS	261			**ST. LOUIS COUNTY**	
RTE 109/RTE W	264			264	RTE 109/RTE W
WILLIAMS RD	265				
LEWIS RD	266			266	LEWIS RD
				269	ANTIRE
RTE 141	272			272	RTE 141
BOWLES	274			274	BOWLES
MRAZ	274				
				275	SOCCER PARK
I-270 NORTH	276B			276B	**I-270 NORTH**
I-270 SOUTH	276A			276A	**I-270 SOUTH**
RTE 366/WATSON	277A				
US 67/LINDBERGH	277B			277B	US 67/LINDBERGH
BIG BEND	278			278	BIG BEND
				279	BERRY
ELM	280			280	ELM
LACLEDE STATION	282				
ST. LOUIS CITY				283	SHREWSBURY
JAMIESON	284A			**ST. LOUIS CITY**	
				284B	ARSENAL
				285	SOUTHWEST
HAMPTON	286				
KINGSHIGHWAY	287			287	KINGSHIGHWAY
GRAND AVE	288			288	GRAND AVE
JEFFERSON AVE	289			289	JEFFERSON AVE
I-55 SOUTH	290A				
18TH ST	290B				
				290C	12TH ST./GRAVOIS

I-44 DISTRICT 6 EASTBOUND

I-44 DISTRICT 6 WESTBOUND

I-170 Mile Markers

I-64 WEST/US 40-61	1A	I-170 DISTRICT 6 SOUTHBOUND	I-170 DISTRICT 6 NORTHBOUND		
I-64 EAST/US 40-61	1B				
				1C	GALLERIA PARKWAY
BRENTWOOD BLVD	1D				
FOREST PARK PARKWAY	1E			1E	FOREST PARK PARKWAY
LADUE RD	1F			1F	LADUE RD
DELMAR	2			2	DELMAR
EAST/3B WEST SR 340 (OLIVE BLVD)	3A			3	SR 340 (OLIVE BLVD)
SRD/SR 364 (PAGE AVE)	4			4	SR D/SR 364 (PAGE AVE)
SR 180 (ST. CHARLES ROCK RD)	5			5	SR 180 (ST. CHARLES ROCK RD)
SR 115 (NATURAL BRIDGE RD)	6			6	SR 115 (NATURAL BRIDGE RD)
I-70 EAST (EXIT LEFT)	7A			7A	I-70 EAST (EXIT RIGHT)
I-70 WEST (EXIT RIGHT)	7B			7B	I-70 WEST (EXIT LEFT)
				7C	LAMBERT ST. LOUIS AIRPORT
SCUDDER	8			8	SCUDDEN/N. HANLEY RD
AIRPORT RD	9A			9A	AIRPORT
				9B	BOEING (EXIT LEFT)
				9C	N. HANLEY RD
				10A	I-270 WEST (EXIT RIGHT)
				10B	I-270 EAST (EXIT LEFT)

SR 364 Mile Markers

		SR 364 EASTBOUND	SR 364 WESTBOUND	11B	HARVESTER RD
				12	HERITAGE CROSSING/JUNGS STATION RD
SR94 EAST/ST. CHARLES	13			13	SR 94 EAST/MUEGGE RD
ARENA PKWY/UPPER BOTTOM RD	14			14	UPPER BOTTOM/ARENA
MARYLAND HEIGHTS EXPRESSWAY	17			17	MARYLAND HEIGHTS EXPRESSWAY
BENNINGTON PL	19				
				21	BENNINGTON PL
I-270 SOUTH	22A				
I-270 NORTH	22B				

SR 370 Mile Markers

		SR 370 EASTBOUND / SR 370 WESTBOUND		
			1A	I-70 WESTBOUND
			1B	I-70 EASTBOUND
			1C	SPENCER RD
TRUMAN/CAVE SPRINGS RD	2		2	TRUMAN/CAVE SPRINGS RD
ELM/NEW TOWN BLVD	5		5	ELM/NEW TOWN BLVD
N 3RD ST/SR 94	7		7	N 3RD ST/SR 94
DISCOVERY BRIDGE ST. CHAS CO/ ST. LOUIS CO	8		8	DISCOVERY BRIDGE ST. LOUIS CO/ ST. CHAS CO
EARTH CITY EXPRESSWAY	9		9	EARTH CITY EXPRESSWAY
ST. LOUIS MILLS BLVD	11		11	ST. LOUIS MILLS BLVD
MISSOURI BOTTOM RD	12			
I-270 WEST BOUND	12			
I-270 EAST BOUND	12			

SR 21 Mile Markers

		SR 21 SOUTHBOUND / SR 21 NORTHBOUND		
RT B	164.8		164.8	RT B
RT BB	165.4		165.4	RT BB
STADIUM DR UNDERPASS	166.4		166.4	STADIUM DR UNDERPASS
RTE A	167.8		167.8	RTE A
SAND CREEK	169		169	SAND CREEK
HAYDEN RD	169.2		169.2	HAYDEN RD
GLADE CHAPEL RD OVERPASS	171.4		171.4	GLADE CHAPEL RD OVERPASS
OLD HWY 21 (GOLDMAN)	172.6		172.6	OLD HWY 21 (GOLDMAN)
KLABLE RD OVERPASS	174.2		174.2	KLABLE RD OVERPASS
SCHENK RD OVERPASS	175.2		175.2	SCHENK RD OVERPASS
HEADS CREEK	176.4		176.4	HEADS CREEK
RT MM	177.7		177.7	RT MM
W. FOUR RIDGE RD OVERPASS	179		179	W. FOUR RIDGE RD OVERPASS
OLD HWY 21 (SHADY VALLEY)	180.4		180.4	OLD HWY 21 (SHADY VALLEY)
OLD HWY 21 UNDERPASS	182		182	OLD HWY 21 UNDERPASS
WEST ROCK CREEK RD OVERPASS	182.8		182.8	WEST ROCK CREEK RD OVERPASS
OLD HWY 21 OVERPASS	183.2		183.2	OLD HWY 21 OVERPASS
LONDELL RD	184.2		184.2	LONDELL RD
OLD HWY 21	184.5		184.5	OLD HWY 21
SR 141	185.6		185.6	SR 141